DOCUMENT RESUME

ED 457 684 FL 026 906

AUTHOR	Felix, Uschi
TITLE	Beyond Babel: Language Learning Online.
INSTITUTION	Language Australia, Melbourne (Victoria).
ISBN	ISBN-1-876768-25-8
PUB DATE	2001-00-00
NOTE	359p.; Accompanying CD-ROM not available from ERIC.
AVAILABLE FROM	Publications and Clearinghouse Manager, Language Australia, GPO Box 372F, Melbourne, VIC 3001.
PUB TYPE	Books (010) -- Collected Works - General (020)
EDRS PRICE	MF01/PC15 Plus Postage.
DESCRIPTORS	Chinese; Class Activities; Classroom Techniques; *Educational Technology; English (Second Language); Foreign Countries; German; Hypermedia; Information Technology; Japanese; Learning Modules; Multimedia Materials; Second Language Instruction; *Second Language Learning; Uncommonly Taught Languages; *World Wide Web
IDENTIFIERS	Australia

ABSTRACT

The book and accompanying CD-ROM is designed to assist teachers who want to develop their own materials on the World Wide Web, are interested in integrating interesting Web sites and ideas into their curriculum, or are interested in students' perspectives of the Web. It is also for anyone who wishes to refresh a language or get a feel for a new one or who wants to learn more about Web-based language teaching. The book is divided into three parts and several chapters. Part one, "Development: Doing It with More or Less," includes eight chapters and an introduction: "InterDeutsch: Going Solo: First Steps into Virtual Teaching on a Zero Budget" (Claudia Popov); "Advanced EFL Online: How Can It Help? (Miriam Schcolnik); "A Resource Centre on the Net: A Model for Less Commonly Taught Languages" (Injung Cho); "Going Online: Can Language Teachers Go It Alone and Is It Worth the Heartache?" (Sally Staddon); "Sakura: An Interactive Site for Japanese Language Learners" (Takako Tomoda, Brian May); "Online German for Secondary School Students" (Stefo Stojanovsjki, Fred Hollingsworth, Jennifer Saynor-Locke); "Building Bridges: Design Issues for a Web-Based Chinese Course" (Jane Orton); and "Worlds of Words: Tales for Language Teachers" (Truna Aka J. Turner). Part two, "Practice: Virtual Language Learning Revisited," and part three, "Research: Absolutely Worth the Effort," are not divided into chapters. Web site references appear throughout the text. (Contains 67 references.) (KFT)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 457 684

Beyond Babel:

language learning online

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

J. Kindler

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

FL026906

uschi felix

with contributions by practitioners

BEST COPY AVAILABLE

Beyond Babel:
language learning
online

Uschi Felix
with contributions by practitioners

published by

Language Australia Ltd.

Beyond Babel:
language learning online

National Library of Australia Cataloguing-in-Publication Data
Felix, Uschi.
Beyond Babel : language learning online.

Bibliography.
ISBN 1 876768 25 8.

1. Second language acquisition — Computer-assisted instruction.
2. Second language acquisition — Computer network resources. I. Felix, Uschi.

407.85

Cover design by Peter Stagg.
The CSIRO Parkes radio telescope photo by R. Twardy, CSIRO.
Pieter Bruegel the Elder — "The Tower of Babel" image courtesy of
Museum Boijmans Van Beuningen, Rotterdam.

Published by Language Australia Ltd.

© *Uschi Felix, 2001.*
No parts may be reproduced by any process except with the express
written permission of the authors or in accordance with the
provisions of the Copyright Act.

All enquiries in relation to this publication should be addressed to:
Language Australia Ltd
GPO Box 372F
Melbourne, VIC 3001

The views expressed in this publication are those of
the author or the editor and do not necessarily reflect the views or
policies of Language Australia Ltd.

Contents

Foreword 5
About this book 7
About the CD-ROM 9

Part 1 Development: Doing it with more or less 11

Introduction 13

InterDeutsch — Going solo: First steps into virtual teaching on a zero budget 15
Claudia Popov

Advanced EFL online: How can it help? 29
Miriam Schcolnik

A resource centre on the Net: A model for less commonly taught languages 59
Injung Cho

Going online: Can language teachers go it alone and is it worth the heartache? 81
Sally Staddon

Sakura: An interactive site for Japanese language learners 99
Takako Tomoda & *Brian May*

Online German for secondary school students 121
Stefo Stojanovski, Fred Hollingsworth, Jennifer Saynor-Locke

Building "Bridges": Design issues for a Web-based Chinese course 137
Jane Orton

Worlds of words: Tales for language teachers 163
truna aka j. turner

Part 2 Practice: *Virtual Language Learning* revisited 187

Developments since 1998 189
Reflections on the pedagogy 190
Resources surveyed 191
Acknowledgements 193
Verification of sites 193
A Integrated materials 195
B Substantial materials or whole subjects 199
C Substantial materials — commercial or protected 211
D Small courses and bits and pieces 221
E Grammar and grammar-based material 229
F Publishers' sites 239
G Magazines and creative writing 243
H Tools 247
I Self-contained interactive tasks 251
J Web tasks 257
K Webquests and simulations 259
L Cooperative ventures 261
M MOOS, MUDS and MUSHES 267
N Chat sites 271
O Sites for children 273
P Structured teaching plans for interactive tasks 279
Q Professional development and resources for teachers 281
R Metasites 291
More thanks 296
Index by language 297

Part 3 Research: Absolutely worth the effort! 299

Introduction 301
Is the Web a viable language learning tool?
  Study 1: Tertiary students' views 305
    Focus: Learning strategies
  Study 2: Tertiary, secondary and primary students' views 317
    Focus: Learning styles
Delights and dilemmas — Perceived advantages and disadvantages of Web-based language learning 337
General conclusions, implications and recommendations 351
References 361
Appendices 367

Foreword

That this book came off the ground is a miracle. It was produced during a time of enormous personal stress. The balancing act of holding together the countless individual components, together with coping with the volatility of the technology, often bordered on the overwhelming. In the end the task was made possible through the unerring reliability of my research assistants, the generosity of the numerous contributors and the no-nonsense and speedy professionalism of the publisher.

All are being thanked in appropriate places throughout the book but I am especially grateful to Nina Dow for her contribution to the data gathering and statistical analyses; to Judith Bothroyd for her ability and willingness to attend to any emergency at any time with supreme calmness; to Ria Hanewald for recruiting and coordinating participants in one of the research studies; to Peter Stagg for producing the CD-ROM and wonderfully creative ideas for the cover; and to Dave Tout, Nicole Hayes and Gabrielle Markus for producing this fine version of the book. Most of all I am indebted to my husband David Askew, who in the face of very serious illness, committed grumpily to endless hours of Web searching and laborious proofreading well beyond the call of any research assistant on the market.

About this book

Rationale

This book follows on from *Virtual Language Learning: Finding the Gems Amongst the Pebbles* published late in 1998. While it updates some of the information in the earlier book — Part 2 provides a variety of example language sites in an expanded set of categories — this work is essentially a new book that provides information about the development of online resources for language learning, practical examples across a large variety of approaches and results of research into student responses to this form of learning.

Two new parts have been added. Part 1 includes a series of contributions exploring the development of specific language resources on the World Wide Web in a large variety of settings and approaches. Part 3 presents a substantial body of new research into students' perceptions of the environment and the relative influence of learning strategies, learning styles, study preference and gender.

Presented in jargon-free language, the emphasis is on what can be done with few resources and relatively little expertise. The information is intended to be relevant to teachers of all languages in all sectors of the education system.

Audience

In preparing this book we had several groups of readers in mind:

Teachers who wish to develop their own courses or materials on the World Wide Web.

Part 1 provides a peer perspective on how resources might be developed and Part 2 includes a large number of examples of approaches to the task. This latter section is not intended as a training manual but rather as a first port of call for novice developers. The major rationale here is to discourage the reinvention of the wheel and to encourage global cooperation. In many cases desired materials may already exist, so there should be more to gain from developing complementary resources than duplicating what is already available.

Teachers who wish to integrate interesting Web sites and ideas into their curriculum.

Part 2 will save many hours of searching the web by providing access to a range of online materials classified in categories relevant to the curriculum. Teachers will be able to augment their own resources without expending large amounts of money or time negotiating permission from respective authors to use the materials. Experience during the writing of the book has continued to be very positive in terms of the content providers' generosity.

Teachers and researchers who are interested in student perceptions of the environment.

Part 3 gives a jargon-free insight into how such research might be carried out and reported. It contains the views of a broad sample of students engaged in Web-based learning at a variety of levels, settings and languages on a large number of aspects related to successful language learning. Readers are invited to use the instruments developed here for their own research purposes.

Anyone who wishes to refresh or improve a language, or get a feel for a new one in the comfort of their own home.

We are reluctant to describe this simply as learning a language because it takes a very special person to learn and, especially, speak, a language without face-to-face communication. Nonetheless, Part 2 provides instant access to hundreds of hours of interesting learning materials, most of them available free of charge and often including feedback and opportunities to delve into the authentic environment of the target language culture. This section gives a detailed insight into the design implications and set-up prerequisites for Web sites.

People who wish to learn more about approaches to Web-based language teaching, and, in general, to delivering courses on the Web.

Parts 1 and 2 allow for a comprehensive exploration of different types of delivery in terms of content and interaction. Language teaching is such a complex task that it lends itself well as a model for Web-based learning, because whatever can be achieved for languages will ultimately be possible in virtually any other subject.

About the CD-ROM

We have included on the CD-ROM the content of Part 2 of this book, "Virtual Language Learning Revisited". This will not only allow easy access to all external sites, but instant cross-referencing. The plan is to update the CD-ROM every two years. For this we would gratefully receive information about relevant resources.

Virtual
language
learning
revisited
by Uschi Felix

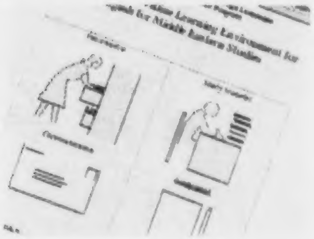
Since Parts 1 and 3 of the earlier publication *Virtual Language Learning: Finding the Gems Amongst the Pebbles* are still relevant, we have also included its entire contents with some cross-references between the two books.

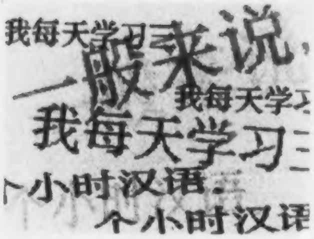
BEST COPY AVAILABLE

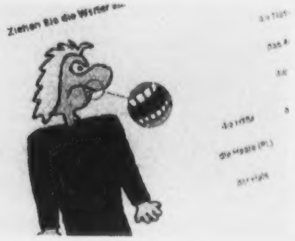
Part 1

Development:

Doing it with more or less




一般来说，
我每天学习三
个小时汉语。


Ziehen Sie die Wörter

BEST COPY AVAILABLE

Introduction

This part of the book is not intended as a best-practice guide to developing online resources — excellent publications of this nature already exist and are referred to throughout this book. What is important in successful online activities, as in any teaching or learning, is the combination of the teacher/developer, the students and the setting, which is what we intended to demonstrate here.

We were interested in how practising language teachers were integrating the Web into their courses, and particularly, in their personal experience of the process in regular teaching environments where support of any kind is often difficult to come by.

Contributions range from the financially impoverished at one end, as in Claudia Popov's account, to the enviably rich at the other, as described in Jane Orton's contribution. We were keen to emphasise the poorer end of the spectrum because that is the environment in which most of us find ourselves, and so would provide the most benefit.

I am indebted to all contributors for their generous, often warts-and-all, accounts that faithfully reflect their struggle with a new but exciting and promising environment. Their commitment to students is obvious, a refreshing element notoriously absent in materials developed by state-of-the-art sole programmers. Interestingly enough, I had to prompt most of the contributors to reveal more of their personal frustrations and disappointments because they believed that these accounts would be of interest to no one. I believe, however, that these comments will be a great deal of use to colleagues embarking on a similar path.

If contributions from Monash colleagues dominate the group, this is not because we think that we do things best. Several colleagues from North America and Europe had promised papers which, for reasons of time, they were not able to deliver. After all, it is much easier to hassle local contributors about deadlines with a raised eyebrow or a tap on the shoulder — one of the upsides to synchronous live communications!

I am therefore most indebted to two virtual colleagues, Miriam Schcolnik and Claudia Popov, whom I have never met in person, but who contributed with great enthusiasm and reliability. Miriam, whose students also participated in the research study reported in Part 3, was the first to submit her chapter and has patiently waited for the book to appear, making insightful comments on the write-up along the way.

We have attempted to present a variety of languages, settings and approaches, with writers following a more or less common structure along with a brief for language that is accessible, non-convoluted nor overly academic.

Since relatively little is still known about the MOO environment, especially when it is used for language teaching, we also asked Truna, a respected guru and veteran in the field, to demystify it for us in her delightful jargon-free language.

To put relative costs into perspective, at the time of publication, one Australian dollar (A$1.00) was equivalent to approximately US$0.50.

I hope readers will enjoy reading the papers as much as I have enjoyed editing them.

InterDeutsch – Going solo:

First steps into virtual teaching on a zero budget.

Claudia Popov
Leipzig

Name of course:	*InterDeutsch*
Name of developers:	Claudia Popov (all materials), Sven Liese (special applets), and Anton Popov (graphics).
Budget:	$0
Mode of delivery:	Distance education
URL of site:	http://www.interdeutsch.de

Context and rationale for development

InterDeutsch is a substantial commercial site offering individualised German courses, each consisting of four lessons designed to take four weeks. The courses are exclusively distance education courses, and provide intermediate and advanced learners with the opportunity to practise their German in an efficient way. Students work with an experienced native German teacher and receive more individual treatment than in normal classroom lessons. Authentic up-to-date materials give the feel of being in Germany. An individual study program is created for each student, taking his/her particular needs into account. Since that means a lot of preparation for the teacher, the courses are more expensive than usual on the Internet. For this reason, and because we started out without any promotion, we did not expect more than two or three students a month.

In addition, the InterDeutsch homepage contains the Studienbibliothek which provides open access to a lot of games, exercises and tests.

So far, InterDeutsch has been a sort of one-person attachment to the Internet company www.virtuelles-kaufhaus.de. We started in 1998 as a team of people with ideas for setting up something new (for Germany!) on the Net — a regional virtual department store, a virtual art gallery and a virtual language school. For each of us it was an experiment and an adventure. What would happen when we opened on the Internet? What we learnt was that things turned out very differently from what we had been expecting.

As a newcomer, InterDeutsch needed to become known in cyberspace. We registered with 360 international search engines but did not have any other promotion other than, from April 1999, the Internet-based bCentral Link exchange. This site provides data about visits to main pages, and its statistics showed there were up to 500 visits a day just in the Studienbibliothek. Our inclusion in the substantial database at Heinrich Heine University (Düsseldorf) probably attracted visitors, as well as having links on the Web sites of German language departments in universities like South Florida and North Carolina.

InterDeutsch started with no budget! All the technical support provided by the parent company was "paid for" by some kind of work in return. It is difficult to say what it cost in time and dollars to produce the materials for the courses and the Studienbibliothek. Everything was designed within a particular teaching process, and working out the idea for a game or an exercise took as much time as the technology or the page layout. What's more, developing interactive materials is a learning process which initially imposes far greater time demands on a language teacher than it would for a professional programmer. On the other hand, it is almost impossible to separate the linguistic and methodological aspects of the process from the programming aspect. For this reason, it is easier ultimately to do everything yourself! Once familiarity with inserting an applet into a simply structured Web page is gained, an average of one hour per exercise can be expected. Designing a whole lesson for an individual course takes at least three to four hours, depending on the subject.

From classroom to Web-based learning

The whole project, from initial conception to final realisation, involved a personal journey for me as an EFL learner. When I used the new media for communication with English-speaking friends, I discovered that chatting via the Internet greatly enriched the methodological repertoire because of its middle position between spontaneous spoken language and planned written language. The initial course design consequently included a weekly chat, a Web task with authentic materials, and homework transmitted and marked by e-mail. At this point, the target audience was intermediate German as a Second Language (GSL) learners who were working and living in Germany, who needed special help to improve their German, but who had neither the time, nor the patience, to attend a standard class-based course at the local adult education centre. What these students enjoyed most was the independence of time and place that we offered. At that stage, one face-to-face conversation a week was included, and that mixture of face-to-face and virtual modules made the courses very intensive and effective.

The next stage of development started with the discovery of authoring software like Hot Potatoes. From this point, it was possible to create interesting interactive exercises and tests that fitted with the other materials. Soon more and more ideas for games and new types of exercises were realised and added to the Studienbibliothek.

The structure and materials of the three courses that we finally offered — General German, Brush up your German, and Business German — resulted from the experiences and feedback from this first GSL course. The idea of offering the same service to learners of German as a Foreign Language (GFL) worldwide on the Internet was the logical outcome. Commercial aspects were not our main concern but, rather, the question of what German learners might need and expect from Web-based courses.

A surreptitious market analysis on the Web in autumn 1998 showed that, outside the universities, no other teacher-led GFL distance courses existed and, importantly, none conducted in German from Germany. So it seemed to be a good idea to start by approaching those who wanted to improve their German. Of course, it was obvious that there were many more beginners in the world than intermediate and advanced German learners, but we decided to restrict ourselves to the latter group.

Meeting the requirements for a high quality online course for beginners seemed almost impossible, particularly if it was all up to one person. Such a course can advance only in small steps, so, setting Web tasks with authentic materials would be difficult. Even if a lot of pictures, video and audio files were provided, giving students opportunities to speak German would be a serious challenge. Not even the best Web-based distance course could promise that with a good conscience, unless it used more complicated technology like voice mail, Web phone or videoconferencing.

The preferred approach was to create interactive material complementary to a published German course. We needed a powerful partner for such a project and contacted the leading GFL publishing houses Langenscheidt, Klett, and Hueber. All reacted in a friendly and complimentary way, but only one of them was really interested in further cooperation. The idea of offering Web materials to accompany the latest course book for young adults seemed to interest the company's GFL department as much as it did us.

The features we planned included the following:

- A Web gallery where students could post personal descriptions with interests and photos and find German learners from other parts of the world with whom they could communicate.
- A bulletin board with local travelling tips in German where students from all over the world could suggest favourite places in their own countries.
- An international cookbook created by students.
- A weekly chat discussion.

For each lesson of the course book:

- one or two Web tasks with additional exercises
- one phonetic exercise
- one or two interactive grammar exercises or games
- a final test covering all the content of the lesson.

Everybody could visit the Web site's home page and other sites like the gallery, but an ID login system would restrict access to the online lessons to those who had bought the book.

The final offer to the publishing company included a login service, a database which would provide it with information about users' activities (who, how long, how often), design of the front page and lesson sites, and an initial set of 12 lessons. The budget required was 70.000 DM. This was a very modest estimate on our part, but the publishing company withdrew because it was more than twice what they were expecting. So InterDeutsch had to continue on its own.

Linguistic-methodological approach

The courses, as currently offered, are intended to provide:

- a supplement to other types of learning, such as self-instructional tape or video courses, and standard classroom courses which do not offer individual attention;
- help for learners to return to a former higher state of linguistic competence; and
- the opportunity to learn from a native speaker.

The idea is to set up a system of modules that meets the students' special needs resulting from their learning history and the rules of their native language. In a four-week course, three or four individual learning problems can be identified and addressed. The lessons are designed to improve writing and reading skills, and to focus on personal grammar problems.

Every course contains the following elements:

- Entrance test
  This is a set of four Cloze tests of increasing difficulty. A score of more than 30% is necessary for joining a course, otherwise the exercises would be too difficult. The structure of the enrolment site ensures that this test is done before a student can subscribe for a course.
- Information meeting in the chat room
  This next step gives the student and the teacher the opportunity to specify the possible outcomes of the course. Questions that are important for the teacher include students' learning history, their communicative needs, what they are interested in and why they want to do the course. Students may want to know how the course is structured and whether it is what they expected based on reading the description on the Web site. This conversation also serves to reveal a student's real level of communicative competence, and leads to a concrete proposal for four lesson subjects and their general contents, which the student is free to accept or not.

Once the proposal is accepted, each lesson of the study program contains the following elements:

- A reading text on a weekly topic, questions, vocabulary and grammar exercises. The reading text is usually something of current interest from magazine Web sites, like *Der Spiegel*, *Geo*, and *Fit for Fun*, or from a cultural institution like a museum. Exercises ensure that the student extracts the main information from the text, learns some vocabulary, and practises a special grammar item.
- Writing (approximately 200 words) about the weekly topic, getting the teacher's corrections and revising the essay.

- A weekly meeting in the chat room where the student communicates with the teacher about the topic for the week.
- Additional exercises, tests, games and links in the Studienbibliothek.

The following example illustrates how an InterDeutsch course runs and how the design takes into consideration the main principles of the natural approach (Tschirner 1999) — namely, the principle of perceptive learning (input), the principle of awareness, the interactive principle (output), the lexical principle, the emotional principle, and the intercultural principle.

The student in this example is a teacher of biology and chemistry working in Germany. He has signed for the General German course. His school German is not sufficient for more ambitious communicative needs. His particular problems are writing official letters in German and reading specialist German literature. Linguistic problems that emerge during the information chat are the past tense (Präteritum), the past participle, reflexive verbs, the passive and the phonological-orthographical problem of -ie-/-ei-.

The agreed subjects for the four-week course are:

- Lesson 1: *Travelling experiences*, grammatical focus on the past tense.
- Lesson 2: *Formal complaints*, structure and style of official letters.
- Lesson 3: *Natural phenomena*, grammatical focus on reflexive verbs.
- Lesson 4: *History of the computer – a walk through the German Web computer museum*, grammatical focus on the passive.

An overview of Lesson 3 will give an idea of the structure of an InterDeutsch lesson. The first learning experience in each lesson is reading or listening texts on a subject of interest. New vocabulary has to be learned in the context of explanations in German or exercises in the target language (see the first two exercises below). The student in this example was asked to visit the beautiful Alfred-Wegener-Institut Zentrum der deutschen Polar- und Meeresforschung Web site, where a text about different sorts of polar ice contains a lot of reflexive verbs. These are the exercises from that lesson (translated into English):

- Find all the reflexive verbs in the text. Look up the meaning of unfamiliar words in the dictionary.
- Practise the new verbs in the following passage (a Hot Potatoes Cloze exercise).

After the student has understood the main contents of the set text, the identified grammar problem is dealt with:

- Now try to repeat the text from memory (a TexToys exercise). How far can you get without looking it up?

The next step for the student is to express an opinion about the topic for the week, first in the writing task, and then, within a wider context, in the chat with the teacher. It is interesting to see how students use segments of the given text, and how they vary usage during the chat. It is important for both teacher and student to be genuinely interested in the other's opinions and experiences. This is not simply a language lesson, but a meeting between two individuals of different age, profession, culture, personal experience and, perhaps, gender. This is an important and natural driving force for the student's output.

- You will need these verbs when you want to describe a process: *sich entwickeln, sich sammeln, sich bilden, sich trennen, sich vergrößern, sich unterscheiden* etc.

  Choose a natural phenomenon that you can explain (for example, the origin of a thunderstorm or of a volcanic eruption) and describe it.

In general, students feel insecure and seek the teacher's help for certain grammar problems. Additional exercises help them fill the gaps in their linguistic knowledge.

- Relevant additional exercises in the Studienbibliothek:

  The article game, Wortrix: Nature

  The word search game: Weather

- Topic for the week's chat: Global climate change

  In your opinion, who is to blame for the changes in the climate from which mankind has been suffering in recent years? Industrialised nations? Natural processes of change? Should or can we put a stop to the process? In your opinion, what needs to be done now?

At first sight, this might seem to be too little material for anything of great substance to be learnt, but for the students, such a lesson means a lot of very intensive work, particularly as communication with the teacher is conducted entirely in the target language. Usually, students are highly motivated to give their best in German, even in a simple e-mail exchange about the next chat date, and the power of what might seem a trivial activity should not be underestimated. Most students have never experienced such intensive communication in German as in the InterDeutsch course. It is worth mentioning that most students need more than a week for each lesson, and we give them up to three months for the whole course to make sure that they have the time to use all the additional materials the teacher might have suggested.

A very important part of the InterDeutsch site has turned out to be the Studienbibliothek. This section contains freely accessible interactive exercises, tests and games on three levels (basic, intermediate and advanced), Hits für Kids, links to Web dictionaries, publishing companies and sites about the German spelling reform — materials which give a picture of the quality that can be expected in the courses. The section contains many different types of exercises and games in the areas of grammar, vocabulary, text comprehension, semantics and phonetics. Exercises take the form of multiple choice tests, short answer questions, Cloze tests or gap-filling, correct order exercises (syntax and semantics), crossword games (with audio files), matching lists, drag and drop, text reconstruction exercises, storyboard, hangman, jumbled words, the magic board, a word search game, the memory game, Wortrix, and the listening exercise "Find the way".

The last three games, all created by InterDeutsch, are variants of well-known models. The memory game requires antonyms to be found. "Wortrix" is a linguistic variant of the well-known Tetrix, with students having to assign words to the correct article, generic terms or some other categories. It seems to be a favourite of German teachers and we have several times been asked for the applet. "Find the way" is an exercise in aural comprehension, with students having to move a car through a city map according to the oral information provided.

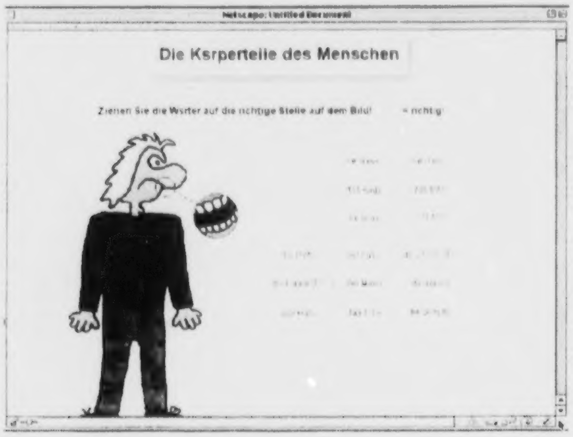
The obvious success of the Studienbibliothek might be ascribed to the fact that most of the exercises are accompanied by comments that give a summary of the relevant grammar rules, help with vocabulary, or explanations of the answers. This means that students have a real opportunity to improve their language skills.

Hits für Kids has been created for young people who like German pop music and rap. It contains four German hits that spent some weeks in the Top Ten. Students are directed to the stars' home pages where they can hear the original sound files and try to understand authentic information about the singers. This section gives an idea of how the Web tasks of the InterDeutsch courses are designed. It contains the following elements:

- MfG by Die Fantastischen Vier which is a satirical song about German abbreviations;
- Suparichie where students have to correct the grammatical chaos of the original
- Xavier Naido's Führ mich an Licht — a listening and text reconstruction exercise;
- 10 kleine Jägermeister by Die toten Hosen — a fill-the-gap exercise on the past tense.

Technical approach

The programming equipment used for all the InterDeutsch materials is quite unspectacular. Most tests and exercises were created with the authoring programs Hot Potatoes 3.0 and TexToys. Another interesting source is Quia which stores exercises created by users. Its weakness is that it requires English as the language of navigation and comment. Much better in that respect is Headlines-Makers. The following exercise, which requires the names of parts of the body to be dragged into the appropriate position, was created by one of its programs, PlaceMaker3:



Die Ksrperteile des Menschen

Ziehen Sie die Wsrter auf die richtige Stelle auf dem Bild!

= richtig

Other JavaScript applets — like probably the most popular InterDeutsch game Galgenraten — were found, free for the taking, on private Web sites. So far, only three applets have been created especially — the article game Wortrix, the memory game, and the listening exercise Find the Way — but others will follow.

The layout of the exercise pages has been made with the simple and free HTML editor Arachnophilia which allows beginners to learn HTML. It can accommodate changes in the page sources, such as inserting JavaScript applets. Arachnophilia writes pure HTML code without any disturbing additions such as those produced by FrontPage. This has meant that the site layout, especially of Hot Potatoes exercises, could be improved step by step. JPEG and GIF graphics were created with the help of the usual graphics programs. The animated GIFs were also created by freeware like GIF Construction Set.

Audio files were created using Syntrillium Cool Edit 96 and the Real Encoder. The production of phonetic and listening exercises, especially, would not have been possible without the professional advice and technical know-how of our parent company. In any case, the production of audio files was one of the more time-consuming tasks.

Certainly, more could be done to make the InterDeutsch sites even more attractive and professional to match the excellent standard of sites like Lina und Leo, the online course of the Goethe-Institut. On the other hand, we deliberately chose to minimise special effects, like background sound, video sequences and the use of a

BEST COPY AVAILAB

Web phone, in order not to distract visitors from the essentials, and to keep the site user-friendly for the average student who might otherwise feel overtaxed by the technology. There is no need to implement everything that is technically possible!

Feedback and problems

At the end of each course the students were asked to provide a short critical summary. Generally, the reactions to the content were positive. What students enjoyed most was the personal contact with the teacher; the majority of them were at an advanced level of German and needed, above all, a native speaker's pedagogical input.

The following aspects proved problematical:

- Because of German consumer protection laws, and technical aspects like the costs of a secure server, payment has only been possible on presentation of an account after enrolment. Some students in Arab countries have obviously still not received the bill! Others gave up when they found they had to pay considerable bank fees for a money transfer to Germany.
- A further problem was the enrolment of minors since, under German law, they are not allowed to sign contracts.
- Some students were not aware of the difference between their entrance test score and their own evaluation of their German skills, requested in the booking form.
- Some students were not very familiar with the use of the Internet. They could not handle the installation of the chat program which was needed right from the beginning for the information chat, and had problems with the required plug-ins.
- Others did not expect the work to be so intensive and gave up for lack of time.

The well-known disadvantages of Web-based courses mentioned in Felix (1998) did not really scare off the students. They had obviously already faced them.

The feedback on the exercises in the Studienbibliothek has been of interest. Many teachers from universities and schools all over the world wrote to report on how they were using the material, and how much their students enjoyed the exercises and games. The same response was received from across all user age groups. The data we collected provided us with information about who the typical German learners are, and what they are hoping to find on the Internet. As the experiences of the first two years of InterDeutsch have shown, there are many beginners and students at a low intermediate level, who are struggling with difficult German grammar, and who are grateful for interesting and varied exercises with clear and helpful comments. The more general the vocabulary and grammar subjects are, the better the exercises fit into any curriculum, and the more they are used by teachers and students.

The fact that not many German learners are at a level that allows fluent communication, has changed our future directions. Instead of relatively expensive individualised courses for intermediate and advanced learners, what seems to be worth developing is a set of simple, general and cheap units of about five exercises per subject that would supplement other teaching materials at every level. This may be the central lesson to be drawn from our experience, and may well serve as a guideline for future projects.

The main problems for any further development are technical. We need to install password-controlled access to the new units, create a chat room or a MOO, with special features like different font colours and invisible remarks directed to individual chat partners, and arrange secure payment by credit card. The investment required is considerable. At this point, unfortunately, nothing more can be done with so little funding.

Future plans and prospects

Regardless of the critical issue of the financial resources required, the future progress of InterDeutsch is clear. New materials are ready to be offered. Typical subjects like shopping, health and food, as well as grammar problems like the subjunctive or verb tenses, can be worked on. New features, like more listening texts and exercises, new types of tests and games, and comics, will be included in the units.

The aim is for materials to go beyond what is available in the Studienbibliothek in various ways:

- Clearly explained grammar hints for each subject
- Effective vocabulary training with a large number of audio files
- A well structured order of items (exercises, games and tests)
- Web tasks and links to motivate visits to authentic German Web sites
- A final test for each unit as a guide for self-directed work
- A glossary in English and French to ensure complete understanding.

More than the one-off exercises in the Studienbibliothek, these units are intended to supply teachers and students with additional materials that they can use.

No matter how much of this turns out to be realisable, we have been surprised that so many people from so many different countries have located the InterDeutsch

Web site and have had fun using the materials. I would like to thank all those who have encouraged my work by providing helpful feedback as well as compliments. Their responses will be a stimulus to tackle the hurdles that we are currently facing.

Biodata

Dr. Claudia Popov is a GSL teacher in Leipzig, Germany. She has worked for the Saxon Ministry of Culture and Education on the Commission for the GSL curriculum, and has experience in teacher education and the in-service training of teachers in linguistics, language acquisition and CALL.

References

Literature

Felix, U. (1998) *Virtual Language Learning: Finding the Gems Amongst the Pebbles,* Melbourne: Language Australia Ltd.

Tschirner, Erwin (1999) "Der Natural Approach: Prinzipien der Unterrichtswirklichkeit", in Barkowski, H. & Wolf, A. (Hrsg.), Beiträge der Jahrestagung Deutsch als Fremdsprache an der Friedrich-Schiller-Universität Jena (Materialien Deutsch als Fremdsprache 52 (S. 64-78), Regensburg: FaDaF

(http://www.uni-leipzig.de/herder/lehrende/tschirner/texte/tschirner2.htm)

Web sites

InterDeutsch
Studienbibliothek
http://www.interdeutsch.de/studien1.htm

Individual exercises
http://www.interdeutsch.de/galgen.html
http://www.interdeutsch.de/wordsearch2.html
http://www.interdeutsch.de/wordswap/wortrix.html
http://www.interdeutsch.de/survival/map/map.html
http://www.interdeutsch.de/memory/memory.html
http://www.interdeutsch.de/mensch_ns3.htm

Free services:

Half-Baked Software (Hot Potatoes)
http://Web .uvic.ca/hrd/halfbaked

bCentral Link exchange
http://member.linkexchange.com

Arachnophilia HTML editor
http://www.arachnoid.com

The Applet Depot
http://www.ericharshbarger.com:80/java/

Headlines — Makers
http://lang.swarthmore.edu/makers

Quia
http://www.quia.com

Parsimony - Free guestbooks
http://parsimony.net

Other Web sites:

Heinrich-Heine-Universität Düsseldorf
http://www.iik-duesseldorf.de

University of South Florida
http://nosferatu.cas.usf.edu/languages/german/germlinks

University of North Carolina
http://www.uncg.edu/~lixlpurc/german.html

Alfrd-Wegener-Institut Zentrum für Polar- und Meeresforschung
http://www.awi-bremerhaven.de/Eistour/index-d.html

Travlang's Dictionaries
http://dictionaries.travlang.com/GermanEnglish

Lina und Leo
http://www.goethe.de/z/50/linaleo/mainmen2.htm

Advanced EFL online:

How can it help?

Miriam Schcolnik
Division of Foreign Languages, Tel Aviv University

Name of course:	English for Students of Humanities — Middle Eastern Studies The course is a one-semester university course. Number of students enrolled: 35
Name of developer:	Miriam Schcolnik
Budget:	$0 (No special budget was allotted. The OLE was developed as a completely voluntary instructor initiative and project.)
Mode of delivery:	Face-to-face teaching and Web-based complement
URL of site:	http://www.tau.ac.il/~smiriam

Context

In the Division of Foreign Languages at Tel Aviv University, students generally satisfy the university's requirements by taking one or more courses in English for Academic Purposes (EAP) reading comprehension. Since students' assigned readings are increasingly in English, in 1991 the Faculty of Humanities requested the creation of a unique advanced course that would enhance students' abilities to cope with academic texts in English, in particular, texts closely connected to the content of the students' mainstream course work. Several specialised English courses were set up. These advanced courses build upon the students' previous experience with text, and foster the evaluative analysis of various authors' discussions of a common topic.

The following description applies specifically to the course for Middle Eastern Studies. For a number of years the course has incorporated the use of technology and electronic resources: CD-ROM encyclopaedias and journalistic programs (e.g. the Time Magazine© CD-ROM, *Desert Storm*) for background knowledge, documentary videos, and the Internet. For the independent reading project, students are encouraged to give their oral presentations using presentation software (Schcolnik & Kol 1999).

Students in the course are undergraduates (usually first year students) typically aged 21 to 28. They perceive English lessons as a necessity, a prerequisite to get on with their studies. Most students are native speakers of Hebrew, some are speakers of Arabic, and some speakers of other languages such as Russian or French. They are placed at this level of English either as a result of an "exemption score" on the national psychometric test, or because they have successfully completed previous courses. Although the situation has somewhat improved in the last couple of years, most humanities students have little or no previous experience using computers. All students attend classes on campus and for that, as well as for independent work in the library or computer laboratories, they come to campus four or five days a week.

Rationale for developing the Online Learning Environment

A few years ago, due to policy changes, the four-hour course was reduced to two weekly hours. While the objectives of the course remained, contact time was greatly reduced, and so was the possibility of getting to know the students and of having true student-student and student-teacher interaction, or any significant impact on skill acquisition. The teacher and the students meet once a week for two academic hours, for a total of 24-28 academic hours during one term.

The goal of the development project was the creation of an Online Learning Environment (OLE) that would not replace face-to-face interaction but would complement and augment it. The learning environment was meant to provide further opportunities for information searching, meaningful interaction, and sharing of both educational processes and products.

In the experimental implementation of the pilot Web page for the course in 1999, several difficulties became evident. Only 15% of students in the course had e-mail addresses. Most students expressed enthusiasm for using the Web but admitted they had very little computer literacy and almost no experience using the Web. Only 25% of the students had computers at home, and only 15% had Internet connections. These problems were addressed in the development of the Online Learning Environment and in its implementation.

Firstly, as of October 1999, the university requires students to open a university e-mail account. Secondly, to overcome the problem of lack of computer literacy, the course includes orientation sessions (Hillman, Willis & Gunawardena 1994), so students can learn to use the technology. Finally, to ensure equity of access and overcome the lack of personal computers, students are informed that they can access the OLE from the Division of Foreign Languages Learning Center, or from any of the computer laboratories in the Faculty of Humanities.

Several questions were addressed in the development of the OLE for the course.

- What instructional activities are best planned for face-to-face or online encounters? Are the characteristics of the Web environment well-balanced with the components of face-to-face instruction in the course?
- Simply making an online environment available and telling students that they can use it does not ensure its use (Hiltz & Wellman 1997). In addition to problems of inhibition or lack of motivation, the student may be unable to interact successfully with the technology (Hillman et al. 1994). What is required to ensure effective and comfortable use of the learning environment?
- Does the OLE enhance learning by providing additional opportunity for "learner-learner, learner-content, and learner-teacher interaction" (Moore 1991)?
- Are group cohesiveness and communication enhanced in the new course format even though collaborative learning activities are not compulsory (Anderson & Garrison 1998)?
- Do learners perceive the OLE as an effective and pedagogically meaningful tool? Do they recognise it as "a familiar and comfortable place where learning can occur" (Dringus & Terrell 1998)? This would entail a perception of improvement in their reading skills as well as an awareness of side benefits such as access to interesting materials, or more communication with peers.
- Do both learners and teacher become actively engaged in the OLE?

Aims of the Online Learning Environment

The OLE is aimed at providing further opportunities for information access and student-content interaction by offering links to quality Web resources and augmenting time on task (time spent learning). It is meant to provide further opportunities for meaningful student-student and student-teacher interaction through the utilisation of the mailing list and by increasing contact time.

Table 1. Implementation of the instructional objectives

Instructional Objective	Face-to-face	Home/Library (paper medium)	OLE
1. Learn the technical basics for utilising Web resources and participating in online discussions through e-mail. Recognise the layouts, conventions, tools and navigation techniques in the Web in general, and in their course's online environment in particular.	✓ (training sessions)		✓
2. Extensively read authentic academic and journalistic materials in English dealing with the subject matter of their major.		✓	✓
3. Write short responses to questions concerning key issues in the texts & include adequate support for their conclusions.	✓		✓
4. Write brief summaries of the texts read.			✓
5. Evaluate the arguments presented in the texts & judge the author's level of objectivity.	✓	✓	✓
6. Given a variety of resources, locate suitable materials for reading & topic investigation. Select suitable resources for completing their assignments (by selecting the texts that are most relevant to their interests or needs). Interpret and analyse the ideas and views presented.		✓	✓

Instructional Objective	Face-to-face	Home/Library (paper medium)	OLE
7. Express personal views about the topic or the texts orally or in writing.	✓		✓
8. Report on their findings orally and in writing.	✓		✓
9. Participate in discussions about the reading assignments & the news.	✓		✓
10. Compare & contrast the arguments presented in a variety of texts dealing with the same topic. Synthesise and integrate ideas from multiple sources.	✓	✓	✓
11. Organise the information gathered from several sources, prepare presentations based on their readings and present them in class.	✓	✓	
12. Cooperate with their peers in task preparation by providing personal input.	✓		✓
13. Evaluate their own & their peers' tasks & presentations using the criteria provided.	✓		✓

Instructional objectives

The OLE and the tasks are built so as to enhance access to information and interpersonal communication. The question of "what is the best method for delivering learning objectives" (Neufeld 1997) guided the division of activities for the course (see Table 1).

New assessment needs that resulted from the incorporation of the OLE in the course were identified. Students are now also assessed on their use and selection of online resources, as well as their interaction, information-sharing and cooperation.

Table 2 shows the distribution of assessment activities in the course and the means used for each.

Table 2. Distribution of assessment activities and means used.

Objective	OLE assessment	Regular assessment	Means
1. Check reading comprehension	✓	✓	worksheets, summaries & test
2. Check utilisation & selection of Web resources	✓		self-assessment & face-to-face meetings
3. Check participation in online discussions	✓		content analysis of e-mail interactions & self-assessment
4. Check written analysis, interpretation & reactions to texts & news	✓	✓	online discussions & written summaries
5. Check written expression of personal views	✓		content analysis of e-mail interactions
6. Check oral expression of personal views		✓	oral presentations & discussions
7. Check synthesis & integration from multiple sources		✓	final assignment & test
8. Check cooperation with peers	✓		content analysis of e-mail interactions

Development criteria

The following criteria were developed together with an expert panel based on the product objectives:

- The OLE must follow clear organisation and presentation principles to avoid disorientation (Heller 1990; Hill & Hannafin 1997). An important goal of menu design is "sensible, comprehensible, memorable, and convenient organisation relevant to the user's tasks" (Shneiderman 1998), and the OLE must adhere to that principle.

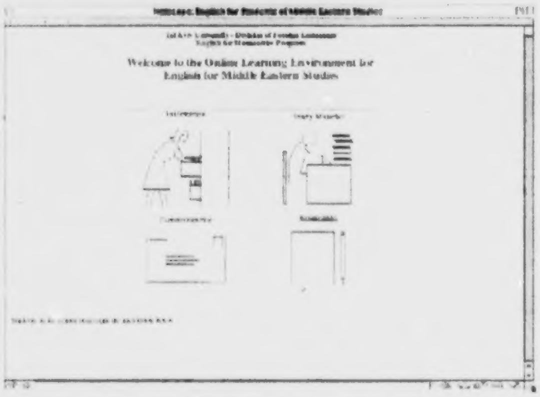
- Both its content and its format must motivate students to become actively engaged.
- It must provide clear and helpful tutorials. In many of the online courses described in the literature (Nunan 1999; McCormack & Jones 1998; Dringus 1999), study materials are included.
- It must provide links — based on the course syllabus and organised by topics to maximise access to relevant materials (Bannan & Milheim 1997). This is based on the assumption that an organised OLE can reduce memory loads of participants while looking for information sources (Dringus 1999).
- It must include tasks that promote student-content interaction. This type of interaction is a "defining characteristic of education" (Moore 1991).
- It must include tasks that encourage discussion and promote collaborative activities (Anderson & Garrison 1998; Hiltz 1997; Hiltz & Wellman 1997).
- It must include elements that encourage learner-learner and learner-teacher interaction. Regarding learner-learner interaction, Moore (1991) reports on research by Phillips, Santoro and Kuehn in which they found that there was more learner-learner interaction through asynchronous e-mail and synchronous chats than was attained in face-to-face classrooms. The teacher will provide assistance and support (Bannan & Milheim 1997; Kirkley, Savery, & Grabner-Hagen 1998), such as scaffolding, feedback on performance, and questioning.
- It must include instructional activities that are suitable for online learning. Different media come "to fulfill their own unique functions within the teaching/learning process" (Nunan 1999:66). It is possible for the same activities to be carried out both face-to-face and online, but ideally, after a few terms of implementation, it should be possible to determine which activities are best done online.
- It must include tasks that require working online. If online activities are not a "required" and graded, integral part of the course, most students will never use them (Hiltz & Wellman 1997).
- It must provide clear links with class activities — e.g., preparation tasks, questions for reflection for face-to-face discussion, etc. Online activities must be coordinated with what happens in the class (Neufeld 1997).
- It must include assessment tools (Mason 1998; Kemp, Morrison & Ross 1998; Bonk & Cunningham 1998).
- The OLE must reflect the pedagogical approach (democratic, learner-centred) underlying it.

Technical approach

For the pilot implementation of the product, it was decided to develop the OLE using Microsoft FrontPage and the regular LISTSERV service provided by the university computation centre, rather than an integrated Web classroom builder. If the first year of implementation proves successful and other instructors decide to adopt the model for their courses, an integrated tool for educational development will be purchased. These tools are available to help educators build Web-based classrooms and offer a complete system for information distribution, communication, student assessment, and class management (McCormack & Jones 1998).

Structure

The OLE was developed following the organisational principles demonstrated in sample Web sites created with integrated tools (McCormack & Jones 1998). The OLE is made up of four different kinds of components: Information, Study Material, Communication and Assessment (see Figure 1).



Welcome to the Online Learning Environment for English for Middle Eastern Studies

Figure 1. The course homepage

Information contains information about the course, the syllabus, the class lists, and links to the news. Using an Internet service that allows users to custom select the type of headlines and number of headlines to display on the home page, a customised headline page was prepared for the course.

Study Material contains tutorials on a variety of skills and topics, guidelines for preparing the final assignment, worksheets (based on the readings), tasks and assignments (to be presented in class or submitted online), and links to a variety of Middle East resources.

Communication contains weekly announcements, an explanation of the functions that can be performed through the mailing list, and students' e-mail addresses.

Assessment contains a sample final exam with an answer key, assessment criteria for a variety of tasks and skills, and two self-assessment forms.

Figure 2 shows the components and organisation of the OLE.

BEST COPY AVAILABLE

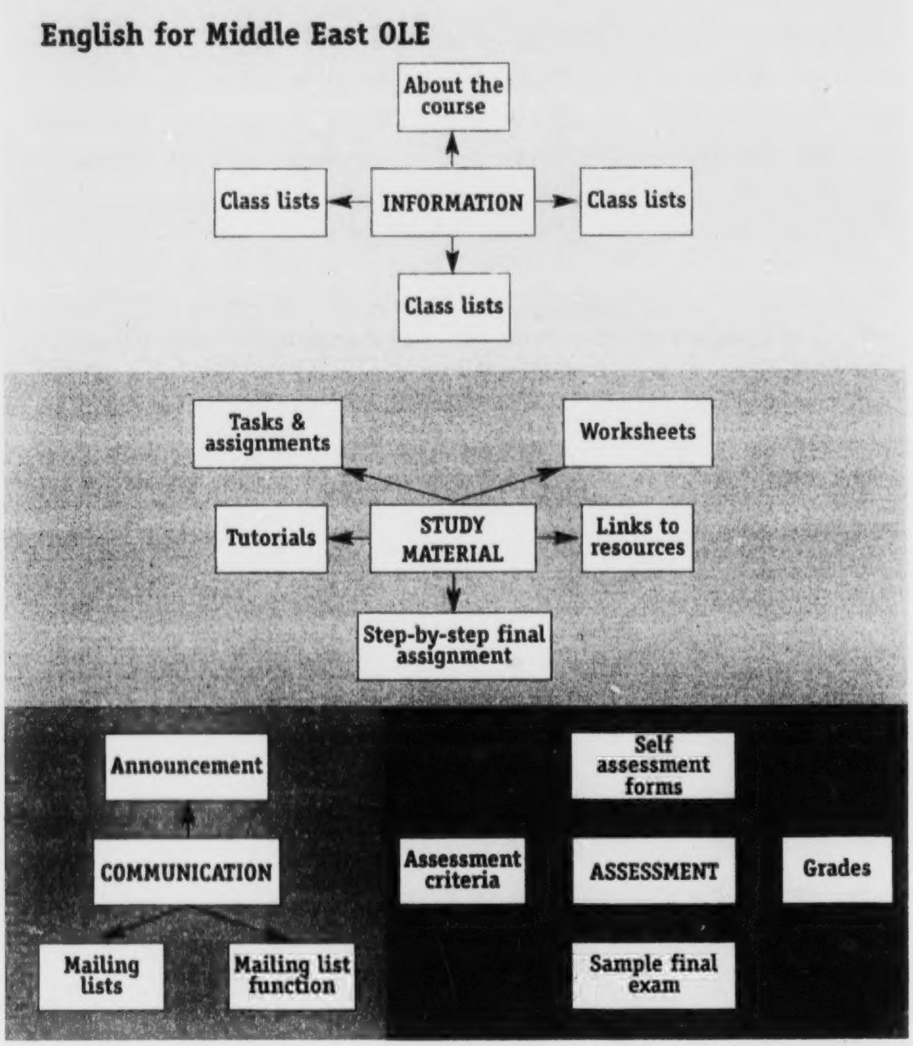

English for Middle East OLE
About the course
Class lists
INFORMATION
Class lists
Class lists
Tasks & assignments
Worksheets
Tutorials
STUDY MATERIAL
Links to resources
Step-by-step final assignment
Announcement
COMMUNICATION
Mailing lists
Mailing list function
Self assessment forms
Assessment criteria
ASSESSMENT
Grades
Sample final exam

Figure 2. The OLE's organisation

Product evaluation

Evaluation at the pre-implementation stage consisted of two parts: a usability study (Dringus 1995) and a pedagogical assessment (Willis 1995). The purpose of the usability study was to assess the OLE's design and navigability, focusing on features such as screen layouts, consistency (Grudin 1989; Shneiderman 1998), use of terminology, learnability (Dix, Finlay, Abowd, & Beale 1998; Shneiderman 1998), and ease of operation/navigation (Trochim 1996). The purpose of the pedagogical assessment session was to assess the OLE's suitability from the pedagogical point of view (Fitzelle & Trochim 1996). The results of these two formative assessments were used to revise the OLE.

BEST COPY AVAILABLE

In addition, a summative student questionnaire was developed (see Appendix 5) and administered at the end of the course (spring term, 2000). The questionnaire has seven sections using a scale of 1–4 as well as a few open questions at the end. Section 1 taps students' previous experience with computers, the Web and Web-based courses. Section 2 focuses on technical and pedagogical support from the staff. Section 3 deals with the interface, its organisation, clarity, and ease of use. Section 4 focuses on the learning that takes place, accessibility of materials, communication opportunities, skill building, and general pedagogical value of the OLE. Section 5 taps the content of the OLE. Section 6 asks about the e-mail interactions and their contributions. Section 7 taps attitudes towards the OLE and the course.

The usability study

Two instruments were developed for this study: a task (see Appendix 1) requiring basic orientation and navigation and the performance of basic functions in the OLE, and an observation protocol sheet (see Appendix 2) to record the subjects' moves, comments and reactions.

In addition to the new instruments, the QUIS (Questionnaire for User Interaction Satisfaction) developed at the University of Maryland to measure computer users' subjective satisfaction with the interface (Harper & Norman 1993), was adapted for this study. The QUIS (Chin, Diehl, & Norman 1988; Shneiderman 1998) includes a demographic questionnaire, a measure of overall system satisfaction along six scales, and measures of specific interface factors. The questionnaire was shortened to include only items pertinent to the OLE.

The method chosen was observation with think-aloud. To get more insight into their decisions, users were asked to think aloud as they worked with the system, and to describe what they were doing and why (Dix et al. 1998; Lewis & Rieman 1993 1994).

Since relatively short testing periods render reliable usability results (Harrison & Mancey 1998), the task in this study was designed to last no longer than one hour.

After the test was over, the QUIS was administered on paper. A debriefing session was conducted after each subject completed the task and the questionnaire. The subjects were asked how they had felt during the test and what they thought about the OLE. They were taken back to the problematic steps they had encountered so they could comment.

Both subjects expressed overall satisfaction with the program and they were able to perform all of the task steps. The observation and what the subjects said in the think-aloud showed that both subjects made the same "erroneous moves" in the task (see Appendix 1) and for the same reasons. For example, they both looked for the worksheets, the sample exam and the book dealing with the Gulf War in *Study Material* (these had been placed elsewhere), and they searched for the grade breakdown for the course in *Information* (originally placed in *Assessment*), thus pointing to inadequate categorisation/organisation in the OLE.

Pedagogical assessment

The teacher questionnaire (see Appendix 3) was developed in order to get teachers' input on whether the OLE meets the development criteria established. The items were organised according to the structure of the OLE components to facilitate evaluator orientation. The general items are at the end, based on the assumption that by then teachers would have a better picture of the OLE and would be able to provide a more holistic assessment. The questionnaire consists of five sections: Information, Study Material, Communication, Assessment, and Overall Evaluation. The questionnaire uses a four-point scale ("Strongly agree" to "Strongly disagree") and has room for additional comments at the end.

Seven teachers participated in the assessment session. All of them are experienced university English teachers (experience ranging from 10 to 40 years), and all of them use technology to enhance language learning, mainly CD-ROMS and applications such as MS PowerPoint, but this was their first encounter with an Online Learning Environment.

All seven teachers were impressed with the OLE and the possibilities it offers (see Appendix 4). Observing the teachers and answering their "navigation" questions was informative, as their moves and questions pointed to the same organisational issues that came up during the usability study, such as the fact that worksheets more naturally belong in "Study Material" than in "Assessment".

Based on the findings, the following changes were made:

- The internal structure of the four components (*Information, Study Material, Communication,* and *Assessment*) was modified.
- The instructions for tasks were subdivided and clearly labeled to avoid long lists that are difficult to read.
- The objectives of the course and the mailing list functions were condensed for the same reason.

Student feedback/perceptions

Since the online learning component was not announced in the course description in the university handbook, the students were surprised to learn about it on the first day of class. They were concerned about the extra effort that it would demand of them, as most of them had never taken such a course before (see Appendix 6, question 3) and had minimal to no computer literacy skills (see Appendix 6, questions 1–2). Even though the university had granted each student an e-mail account at registration, most students were not aware of it. Two students became angry when told they would have to use e-mail. One because she felt it would be very time-consuming, since she had no keyboarding skills in English; the other simply refused to open an e-mail account.

The number of students enrolled in the course (two classes) was 35, but three dropped out. The student questionnaire was administered on the last day of class. However, since many students were absent on that day (N of responses = 20), the results do not reflect how all students felt. An additional problem confounding results, particularly those for questions dealing with online discussions and student–student interaction (questions 40, and 45–47), was that the questionnaire rating scale should have included "not applicable" as an option, but did not. Due to the difficulties and the time it took for students to get and learn to use e-mail, the ambitious nature of the program, and the limited time available, the teacher decided not to implement the original plan regarding LISTSERV interactions. In the absence of a "not applicable" option, many students had trouble answering the aforementioned items.

The results of the questionnaire show that students were divided in how they felt about the OLE and its components, but most students felt the OLE was clear and easy to use (see Appendix 6). This is an encouraging finding, considering the lack of computer/Web literacy at the beginning of the course. In class, some students said that they would prefer working in the library to using Web resources, particularly because they were not used to the medium and found it too time-consuming. Others, however, were extremely pleased to find out "all there is out there" and particularly enjoyed the newly discovered feature of hyperlinked articles pointing them to additional online resources. Some students reported to the teacher that the course had opened up a completely new world to them, a world they had been unaware of until then. Another student felt grateful because "I never would have sat in front of a computer screen if it hadn't been for this course."

Many of the students used their e-mail to communicate with the teacher, but not with their peers. Only a few students went through the whole semester without using e-mail even once. A content analysis of the e-mail written by students revealed that most of the interactions they initiated had the purpose of submitting homework, or additions or corrections to homework (see Table 3).

Function	Percentage of instances
Submit homework, corrections or additions	**53%**
Clarify/explain or make excuses	18%
Notify/announce (e.g. reason for absence)	14%
Ask for clarification/information	10%
Make appointment with teacher	5%

Table 3. Functions of students' e-mail

A guestbook was incorporated into the OLE for students to sign and write comments. They were told that the teacher would check the contents of the guestbook once a week to see "who had been there" and for what purpose. Students often forgot to sign the guestbook, so the information collected could not be used as a reliable "attendance book". However, when they did sign, they explained what they were doing/planning to do (see Table 4), which was informative, if not truly representative.

Activity	Number of
Look for articles	24
Look around/explore	12
Check grades	9
Look for information	9
Read task	8
Check for messages/announcements	7
Read the news	5
Read an article (online)	5
Do task/homework	4
Send e-mail	3
Print task/worksheet	2
Check syllabus	1
Show the OLE to friends (from other courses)	1

Table 4. Students' activities in the OLE

Personal observations/experience

There are numerous examples of sites and environments devoted to language learning and instruction (Felix 1998), most of which cater to beginning or intermediate language learners. But the Web also offers new and exciting possibilities for advanced students of English, who can cope with authentic texts and thus take advantage of the plethora of quality materials available in their various fields of study.

Several problems were encountered during this first implementation of the OLE, namely, a lack of Web literacy and resistance to spending "extra time" learning how to use the new medium. However, upon looking back at the aims of the OLE — to enhance student-content, student-student and student-teacher interaction — one can see that two out of the three aims were achieved.

The OLE with its links and tasks certainly augmented student-content interaction. It was very interesting to see some students' awe at the wealth of relevant materials available on the Web. For this generation of humanities students, technology is not yet a part of their normal, everyday life, and the introduction of the new technology-related skills is often painful and unnatural. However, if the course was the first eye-opener that made them aware of other ways of learning, then it was well worth the effort. These students' English is not perfect. They still have a lot of language to learn, but they can now learn it through meaningful activities performed in real time with authentic materials that are useful to them in their studies.

The second aim of the OLE was to increase student-teacher interaction. This increased as well. As mentioned above, not all, but many students took advantage of the e-mail facility to communicate with the teacher. The teacher, on the other hand, was empowered by the ability to write both personal messages and general messages to her students throughout the course. It is true that students often forgot to check their mail. For many this was still not part of their daily routine. But student-teacher interactions were certainly much more frequent than in a regular face-to-face course meeting only once a week.

Concerning the aim of augmenting student-student interaction, it is obvious that cooperative tasks enhance cooperation. There was indeed a lot of cooperation in the course, but it was mainly face-to-face. Students met to do homework and to prepare their final assignments together. These students studied other subjects together as well, so they saw their peers several times a week. It is possible that in such situations, students cannot perceive e-mail communication as a necessary tool.

It is clear that the Online Learning Environment would have been a lot more popular among students under different course circumstances. Students taking this compulsory two-credit course often feel that, instead of focusing their efforts on the subject matter that interests them, they are forced to take "yet another English course". As a result, there was a gap between the teacher's expectations and the time and effort some students were willing to put into the course. The addition of the Web component increased time spent on tasks, and students, therefore, may have felt the course was too exacting.

Regarding the questions addressed in the development stage, the following observations can be made:

- The Web environment was well-balanced with the face-to-face part of the course.
- In order to ensure more comfortable use of the learning environment, additional training sessions are necessary in the framework of the course.
- The OLE did enhance learning by providing additional opportunity for learner-content and learner-teacher interaction. In order to enhance learner-learner interaction through the LISTSERV, structured tasks and questions specifically designed to encourage e-mail interactions need to be incorporated into the course.
- A lot of face-to-face collaboration took place in the course. Further investigation is needed to determine whether it is realistic to expect online collaboration in situations where students meet several times a week in face-to-face courses.
- Many learners saw the OLE as a pedagogically meaningful tool (see Appendix 6, questions 48 & 51), and many felt that the OLE improved their reading and writing in English (see Appendix 6, questions 18–19).

The organisation and content of the OLE proved to be successful, and can be used as a model for the development of additional online courses in the department. Several workshops on Web-based language learning and the development of Online Learning Environments were given to teachers in the Division of Foreign Languages this year. This school year, similar OLEs will be developed for other EAP courses at a variety of levels.

Biodata

Miriam Schcolnik is Director of the Language Learning Center at Tel Aviv University. She teaches advanced English for Academic Purposes and has published numerous EFL textbooks, teachers' resource books and courseware packages. She also works as a pedagogical consultant for multimedia and Web-based language learning materials development.

References

Anderson, T. D., & Garrison, D. R. (1998) "Learning in a networked world: New roles and responsibilities", in C. C. Gibson (Ed.), *Distance Learners in Higher Education: Institutional Responses for Quality Outcomes* (pp. 96-112) Madison, Wisconsin: Atwood Publishing.

Bannan, B., & Milheim, W. D. (1997) "Existing Web-based instruction courses and their design", in B. H. Khan (Ed.), *Web-based Instruction* (pp. 381-388) New Jersey: Educational Technology Publications, Inc.

Bonk, C. J. & Cunningham, D. J. (1998) "Searching for learner-centered, constructivist, and sociocultural components of collaborative educational learning tools", in Bonk, C. J. & King, K. S., *Electronic Collaborators: Learner-Centered Technologies for Literacy Apprenticeship and Discourse,* New Jersey: L. Erlbaum Associates, Inc., 25–50.

Chin, J., Diehl, V. A., & Norman, K. L. (1988) *Development of an Instrument Measuring User Satisfaction of the Human-Computer Interface,* paper presented at the CHI '88 — Human Factors in Computing Systems, New York.

Dix, A., Finlay, J., Abowd, G., & Beale, R. (1998) *Human-Computer Interaction,* (2nd ed.) Hemel Hempstead Hertfordshire: Prentice Hall Europe.

Dringus, L. P. (1995) "An iterative usability evaluation procedure for interactive online courses", *Journal of Interactive Instruction Development* (Spring), 10-14.

Dringus, L. P. (1999) "Connecting resources in Online Learning Environments", *The Online Journal of Distance Learning Administration*, 2(2), 1-10.

Dringus, L. P., & Terrell, S. R. (1998) *Awareness as a Metaphor in Online Learning Environments,* paper presented at the International Conference on Technology and Education, Santa Fe, New Mexico.

Felix, U. (1998) *Virtual Language Learning: Finding the Gems Amongst the Pebbles,* Victoria, Australia: Language Australia Ltd.

Fitzelle, G. T., & Trochim, W. M. K. (1996) *Survey Evaluation of Web Site Instructional Technology: Does it Increase Student Learning?* Cornell University, [Online] http://trochim.human.cornell.edu/webeval/webeval.htm.

Grudin, J. (1989) "The case against user interface consistency", *Communications of the ACM*, 32(10), 1164-1173.

Harper, B. D., & Norman, K. L. (1993) *Improving User Satisfaction: The Questionnaire for User Interaction Satisfaction Version 5.5,* paper presented at the 1st Annual Mid-Atlantic Human Factors Conference, Virginia Beach, VA.

Harrison, S., & Mancey, P. (1998) "Optimal amount of time for obtaining accurate usability-test results", *Communications of the ACM*, 173-179.

Heller, R. S. (1990) "The role of hypermedia in education: A look at the research issues", *Journal of Research on Computing in Education*, 22(2), 431-442.

Hill, J. R., & Hannafin, M. J. (1997) "Cognitive strategies and learning from the World Wide Web", *ETR&D*, 45(4), 37-64.

Hillman, D. C. A., Willis, D. J., & Gunawardena, C. N. (1994) "Learner-interface interaction in distance education: An extension of contemporary models and strategies for practitioners", *The American Journal of Distance Education*, 8(2), 30-42.

Hiltz, S. R. (1997) "Impacts of college-level courses via Asynchronous Learning Networks: Some preliminary results", *JALN* 1(2).

Hiltz, R., & Wellman, B. (1997) "Asynchronous learning networks as a virtual classroom", *Communications of the ACM*, 40(9), 44-49.

Kemp, J. E., Morrison, G. R., et al. (1998) *Designing Effective Instruction*, Upper Saddle River, New Jersey: Prentice-Hall, Inc.

Kirkley, S. E., Savery, J. R., & Grabner-Hagen, M. M. (1998) "Electronic teaching: Extending classroom dialogue and assistance through e-mail communication", in C. J. Bonk & K. S. King (Eds.), *Electronic Collaborators: Learner-Centred Technologies for Literacy Apprenticeship and Discourse* (pp. 209-232) New Jersey: L. Erlbaum Associates, Inc.

Lewis, C., & Rieman, J. (1993 1994) *Task-Centred User Interface Design: A Practical Introduction*. [Online] ftp://ftp.cs.colorado.edu/pub/cs/cs/distribs/clewis/HCI-Design-Book/.

McCormack, C., & Jones, D. (1998) *Building a Web-Based Education System*, New York: Wiley & Sons, Inc.

Mason, R. (1998) "Models of online courses", *ALN Magazine* 2(2).

Moore, M. G. (1991) "Three types of interaction", *The American Journal of Distance Education*, 3(2), 1-6.

Neufeld, J. (1997) *Towards a Virtual Classroom: A Seven Step Model for Using IT to Enhance Teaching and Learning*, LCD. [Online] http://www.tp.ac.sg/content/lcd/lcdstuff/papers/virtual.htm

Nunan, D. (1999) "A foot in the world of ideas: Graduate study through the Internet". *Language Learning & Technology*, 3(1), 52-74.

Schcolnik, M., & Kol, S. (1999) "Using Presentation Software to Enhance Language Learning", *The Internet TESL Journal*, [Online] http://www.aitech.ac.jp/~iteslj/Techniques/Schcolnik-PresSoft.html

Shneiderman, B. (1998) *Designing the User Interface: Strategies for Effective Human-Computer Interaction*, (3rd ed.) Reading, Massachusetts: Addison-Wesley.

Trochim, W. M. K. (1996) *Evaluating Websites*, Cornell University. [Online] http://trochim.human.cornell.edu/webeval/webeval.htm.

Willis, B. (1995) *Guide #4: Evaluation for Distance Educators*, College of Engineering — University of Idaho Engineering Outreach. [Online] http://www.uidaho.edu/evo/dist4.html.

Appendix 1: The Task

YOUR TASK

- This test is not meant to test you but rather the Online Learning Environment.
- Please tell me what you are thinking as you work.
- Please check each step as you complete it.

☐ Find information about the course.

☐ Return to the main menu (home page) of the course.

☐ Find an online book that deals with the Gulf War.

☐ Read one piece of news about the Middle East.

☐ Find a tutorial that explains how to create summaries on your word processor.

☐ From within the Online Learning Environment, send e-mail to Miriam Schcolnik.

☐ Locate the announcements for the course.

☐ Find a sample exam.

☐ Read the grade breakdown for the course.

☐ Find criteria for evaluating oral presentations.

☐ Print the worksheet for "The Middle East in the 21st Century."

☐ Find Task #3.

Thank you so much for your cooperation!

Appendix 2: Observation Protocol Sheet

Name: ________________________________

Date: ________________ Time: ________________

Time spent on test: ________________

Steps & Time	Observations
Find information about the course.	
Return to the main menu (home page) of the course.	
Find an online book that deals with the Gulf War.	
Read one piece of news about the Middle East.	
Find a tutorial that explains how to create summaries on your word processor.	
From within the Online Learning Environment, send e-mail to Miriam Schcolnik.	
Locate the announcements for the course.	
Find a sample exam.	
Read the grade breakdown for the course.	
Find criteria for evaluating oral presentations.	
Print the worksheet for "The Middle East in the 21st Century."	
Find Task #3.	

Appendix 3: Teacher Questionnaire

Name: ______________________________

Years of teaching experience: __________

Levels you teach: __________

The Online Learning Environment (OLE) for Middle East students is meant to complement the face-to-face component of the course and will be implemented for the first time in the spring semester, 2000. Please answer the following questions as you go over the different components of the environment and feel free to add comments. The questionnaire is organised according to the organisation of the OLE to facilitate your assessment.
Thank you so much for your cooperation!

Note: Each item was followed by the following scale:

☐ **1 Strongly agree** ☐ **2 Agree** ☐ **3 Disagree** ☐ **4 Strongly disagree**

Information

1. The objectives of the course are clear.
2. The OLE provides opportunities to access relevant, quality resources.
3. The links are well organised.
4. The links are helpful.
5. The Mideast news feature is useful.

Study Material

6. The tutorials are clear.
7. The tutorials are helpful.
8. The study material is relevant and meaningful.

Communication

9. The OLE takes advantage of the collaborative potential of the WWW.
10. The announcements option is useful.
11. The mailing list functions are clear.
12. The OLE can enhance communication with the teacher.
13. The OLE can increase communication with other students.
14. The OLE provides increased occasions for feedback from teacher and peers.

Assessment

15. The assessment fits the philosophy and objectives of the course.
16. The assessment taps students' use and selection of online resources.

17. The assessment taps students' sharing and cooperation.
18. The assessment taps team as well as individual performance.
19. The assessment taps students' presentation, reading and writing skills in English.
20. The assessment includes criteria to enhance students' metacognitive awareness.
21. There are opportunities for self-assessment.
22. The self-assessment questionnaires help students reflect on their learning behavior.
23. The sample test is helpful.
24. The tasks are meaningful and engaging.
25. The purpose of the tasks is clear.
26. Questions and instructions are clearly worded.
27. There are tasks to encourage student–content interaction.
28. There are tasks to encourage discussion and collaboration.
29. There are tasks that require working online.
30. The tasks and assignments are pedagogically sound.

Overall Evaluation

31. The degree of computer literacy the OLE requires is realistic.
32. The OLE can be used as a complement to face-to-face instruction in the course.
33. The OLE is well integrated with the face-to-face component of the course.
34. The OLE can constitute an effective and pedagogically meaningful tool.
35. The OLE follows clear organisation and presentation principles.
36. The OLE content reflects an underlying educational philosophy.
37. The OLE reflects a democratic, learner-centred approach.
38. The content reflects the course objectives as stated in the syllabus.
39. The OLE can contribute towards the achievement of the course objectives.
40. The OLE adds valuable elements to the course.
41. The pedagogical approach is suitable for the target population.
42. The content is suitable for the target population.
43. The OLE maximises student involvement.
44. I would consider using this type of OLE in my courses.

Comments

Appendix 4: Teacher Questionnaire Results

Questions	Mean	SD
1. The objectives of the course are clear.	1.57	.72
2. The OLE provides opportunities to access relevant, quality resources.	1	0
3. The links are well organised.	1.28	.45
4. The links are helpful.	1.14	.34
5. The Mideast news feature is useful.	1	0
6. The tutorials are clear.	1	0
7. The tutorials are helpful.	1	0
8. The study material is relevant and meaningful.	1	0
9. The OLE takes advantage of the collaborative potential of the WWW.	1	0
10. The announcements option is useful.	1	0
11. The mailing list functions are clear.	1	0
12. The OLE can enhance communication with the teacher.	1.14	.34
13. The OLE can increase communication with other students.	1.28	.69
14. The OLE provides increased occasions for feedback from teacher and peers.	1	0
15. The assessment fits the philosophy and objectives of the course.	1.14	.34
16. The assessment taps students' use and selection of online resources.	1.14	.34
17. The assessment taps students' sharing and cooperation.	1.42	.49
18. The assessment taps team as well as individual performance.	1.57	.72
19. The assessment taps students' presentation, reading and writing skills in English. 1.42 .49		
20. The assessment includes criteria to enhance students' metacognitive awareness.	1.33	.47
21. There are opportunities for self-assessment.	1.14	.34
22. The self-assessment questionnaires help students reflect on their learning behavior.	1.28	.69
23. The sample test is helpful.	1.42	.49
24. The tasks are meaningful and engaging.	1.14	.34
25. The purpose of the tasks is clear.	1.14	.34
26. Questions and instructions are clearly worded.	1.33	.47
27. There are tasks to encourage student-content interaction.	1.28	.45
28. There are tasks to encourage discussion and collaboration.	1.42	.49

Questions	Mean	SD
29. There are tasks that require working online.	1.16	.37
30. The tasks and assignments are pedagogically sound.	1.14	.34
31. The degree of computer literacy the OLE requires is realistic.	1.57	.72
32. The OLE can be used as a complement to face-to-face instruction in the course.	1.14	.34
33. The OLE is well integrated with the face-to-face component of the course.	1.33	.47
34. The OLE can constitute an effective and pedagogically meaningful tool.	1	0
35. The OLE follows clear organisation and presentation principles.	1.33	.47
36. The OLE content reflects an underlying educational philosophy.	1.28	.69
37. The OLE reflects a democratic, learner-centred approach.	1.57	.72
38. The content reflects the course objectives as stated in the syllabus.	1.14	.34
39. The OLE can contribute towards the achievement of the course objectives.	1	0
40. The OLE adds valuable elements to the course.	1	0
41. The pedagogical approach is suitable for the target population.	1.5	.5
42. The content is suitable for the target population.	1.28	.45
43. The OLE maximises student involvement.	1	0
44. I would consider using this type of OLE in my courses.	1	0

Scale: *(1) Strongly agree (2) Agree (3) Disagree (4) Strongly disagree*

Appendix 5: Summative Student Questionnaire

Age: ____________ Gender: ☐ male ☐ female

I used the Online Learning Environment

☐ at home ☐ on campus ☐ both at home and on campus

Note: Each item was followed by the following scale:

☐ **1 Strongly agree** ☐ **2 Agree** ☐ **3 Disagree** ☐ **4 Strongly disagree**

Previous experience

1. Before starting this course I had experience using computers.
2. Before starting this course I had experience using the Internet.
3. Before this course I used the Web in other courses.

Training and support

4. The technical training we got in the learning centre was suitable.
5. I got help from the teacher when I needed it.
6. I got help from the learning centre technicians when I needed it.

The interface

7. I encountered technical problems.
8. The Online Learning Environment was clear.
9. The Online Learning Environment was easy to use.
10. The Online Learning Environment was consistent (the style, the terminology, etc.).
11. The Online Learning Environment was well organised.
12. The options of the Online Learning Environment were clear.
13. Navigation in the Online Learning Environment was easy.
14. It was easy to enter, go back, and exit the system.

Learning

15. The Online Learning Environment was useful.
16. The Online Learning Environment helped me access relevant materials.
17. The Online Learning Environment helped me learn about the Middle East.
18. Reading the online texts helped me improve my reading in English.
19. Writing e-mail helped me improve my writing in English.
20. The Online Learning Environment helped me achieve the objectives of the course.
21. The Online Learning Environment added valuable elements to the course.
22. The Online Learning Environment helped me develop my computer skills.

The Content

23. The objectives of the course were clear.
24. The content of the Online Learning Environment was suitable.
25. The links were useful.
26. The links helped me save time.
27. The Mideast news link was useful.
28. The tutorials were clear.
29. The tutorials were helpful.
30. The announcements were useful.
31. The tasks and assignments were clear.
32. The tasks and assignments were interesting.
33. The tasks and assignments were useful.
34. The sample exam was useful.
35. The self-assessment questionnaires helped me reflect on my online learning behavior.
36. The assessment criteria made me more aware of what I should do.
37. The assessment criteria helped me focus on important learning strategies.
38. The Online Learning Environment was well integrated into the overall course.

The e-mail interactions

39. The Online Learning Environment enhanced communication with the teacher.
40. The Online Learning Environment increased communication with other students.
41. There were enough interactions among students and between the teacher and the students.

42. The teacher's replies were timely.
43. I got sufficient feedback on my work.
44. The feedback from the teacher was helpful.
45. The feedback from my classmates was helpful.
46. The online discussions were helpful.
47. The online discussions were interesting.

In sum

48. I felt comfortable using the Online Learning Environment.
49. The Online Learning Environment was motivating.
50. My experience with the Online Learning Environment was positive.
51. The Online Learning Environment has advantages over traditional classroom instruction.
52. I would like other courses to have Online Learning Environments.
53. I would recommend this course to other students.
54. List strengths of the Online Learning Environment:

55. List weaknesses of the Online Learning Environment:

Comments

Appendix 6: Student Questionnaire Results

20 students responded to the questionnaire. The following table presents the results.

Questions	Mean	SD
1. Before starting this course I had experience using computers.	2.2	.81
2. Before starting this course I had experience using the Internet.	2.1	.88
3. Before this course I used the Web in other courses.	3.45	.97
4. The technical training we got in the learning centre was suitable.	2.15	.74
5. I got help from the teacher when I needed it.	1.4	.48
6. I got help from the learning centre technicians when I needed it.	1.68	.46
7. I encountered technical problems.	2.72	.80
8. The OLE was clear.	1.9	.53
9. The OLE was easy to use.	1.85	.72
10. The OLE was consistent (in style, terminology, etc.).	1.95	.73
11. The OLE was well organised.	2	.63
12. The options of the OLE were clear.	2	.7
13. Navigation in the OLE was easy.	1.9	.7
14. It was easy to enter, go back, and exit the system.	1.7	.78
15. The OLE was useful.	2.1	.87
16. The OLE helped me access relevant materials.	2.1	.76
17. The OLE helped me learn about the Middle East.	2.3	.78
18. Reading the online texts helped me improve my reading in English.	2.35	.79
19. Writing e-mail helped me improve my writing in English.	2.35	1.02
20. The OLE helped me achieve the objectives of the course.	2.42	.81
21. The OLE added valuable elements to the course.	2.3	.84
22. The OLE helped me develop my computer skills.	2.25	.69
23. The objectives of the course were clear.	1.9	.53
24. The content of the OLE was suitable.	1.95	.58
25. The links were useful.	1.8	.6
26. The links helped me save time.	1.95	.58
27. The Mideast news link was useful.	2	.79
28. The tutorials were clear.	1.64	.58

Questions	Mean	SD
29. The tutorials were helpful.	2.11	.65
30. The announcements were useful.	2.22	.71
31. The tasks and assignments were clear.	1.83	.68
32. The tasks and assignments were interesting.	2.27	.73
33. The tasks and assignments were useful.	2.05	.62
34. The sample exam was useful.	1.68	.46
35. The self-assessment questionnaires helped me reflect on my online learning behavior.	2.38	.82
36. The assessment criteria made me more aware of what I should do.	2.37	.65
37. The assessment criteria helped me focus on important learning strategies.	2.47	.77
38. The OLE was well integrated into the overall course.	2.05	.62
39. The OLE enhanced communication with the teacher.	2.12	.69
40. The OLE increased communication with other students.	2.81	.80
41. There were enough interactions among students and between the teacher and the students.	2.66	.81
42. The teacher's replies were timely.	1.75	.55
43. I got sufficient feedback on my work.	1.77	.53
44. The feedback from the teacher was helpful.	1.66	.47
45. The feedback from my classmates was helpful.	2.88	.67
46. The online discussions were helpful.	2.93	.89
47. The online discussions were interesting.	2.57	.97
48. I felt comfortable using the OLE.	1.94	.99
49. The OLE was motivating.	2.31	.79
50. My experience with the OLE was positive.	2	.88
51. The OLE has advantages over traditional classroom instruction.	1.88	.87
52. I would like other courses to have OLEs.	2.52	1.04
53. I would recommend this course to other students.	2.16	.89

Scale: *(1) Strongly agree (2) Agree (3) Disagree (4) Strongly disagree*

Comments written by students at the end of the questionnaire:

Strengths of the OLE:

"It makes me see and learn a lot of things that I wouldn't see if didn't have this course."

"Different from other classes."

"Using the Internet improved my English."

Weaknesses of the OLE:

"It is very hard for someone who never touched a computer before to use it in the course. I felt stupid and hated every minute."

"People that are not acquainted with computers need to put in more work."

Comments:

"I think it was useful to learn in a different way and to use the Internet, but I didn't really have time and opportunities to surf in the Web, and that's a shame."

"The links were very good."

"The course was good but sometimes there was too much to do and with all other things we have plus work, even if I wanted to do more, I just couldn't find the time."

"The course was good because we read interesting articles and we used the Internet."

A resource centre on the Net:
A model for Less Commonly Taught Languages

Injung Cho
School of Asian Languages and Studies,
Monash University

Name of site:	Virtual Centre for Learning and Teaching Korean
Name of developer:	InJung Cho
Budget:	A$14,560
Mode of delivery:	Computer laboratory classes / online distance education courses
URL of site:	http://www.arts.monash.edu.au/korean/centre/

Context

With the emergence of the Internet, there is the tendency to use "computers as resources in a more open learning environment in which all sorts of learning tools are fully utilised" (Tella 1996). And project or task-based approaches have been perceived as a way of getting the most out of this networked learning environment (Barson 1997; Debski 1997; Chun & Plass 2000). However, there are serious obstacles to implementing a project-oriented approach for Less Commonly Taught Languages (LCTLs). For learning activities to be carried out successfully, the project-oriented approach, based on constructivism, requires rich learning environments which most LCTLs lack.

This article describes how Monash University has been developing a resource centre on the Internet and implementing a project-oriented approach for the program in Korean. The centre does not necessarily have to be network-based, but such a structure has many advantages over a conventional centre, including the provision of a foundation for multi-site online delivery of Korean courses, which are essential for the future viability of the Monash Korean Studies program.

The development of the centre started in August 1999 with a grant of A$14,560 from the Faculty of Arts' Teaching Initiative Funds. Currently it contains mainly materials for beginners, along with Computer-Mediated Communication (CMC) tools such as a Web Bulletin Board System (BBS) and mailing lists.

Korean Studies at Monash is a typical LCTL program, with a learning environment characterised by the typical problems of inadequate numbers of staff, few teaching and learning resources, and a low exposure to the target language outside class.

Staff numbers are far from the minimum of three or four full-time staff suggested by Barko (1995) — one full-time convenor runs a three-year major sequence of Korean language subjects along with additional language and studies subjects with the help of one or two sessional teachers. Teaching and learning resources, apart from textbooks, are few. In particular, the lack of good dictionaries and grammar reference books makes it difficult to encourage the autonomous learning that is particularly important for LCTLs where there is a lack of provision for language maintenance after the course. Finally, students have few opportunities for exposure to the target language outside class; the Monash Language Centre, like the main university library, has very few Korean resources, the Korean community in Melbourne is very small, and the number of overseas Korean students at Monash is limited.

All of this means that the teachers are the most accessible resource. This leads to heavy student dependence on staff, particularly on the convenor. The resulting time pressure makes it difficult to pursue a better learning experience for the students through the development of new learning materials and methodologies.

Rationale for development

In order to create a better learning environment and promote autonomous learning in this deprived situation, Computer-Assisted Language Learning (CALL) was introduced in 1996. Since many CALL programs contain materials of various media such as audio and video clips, and materials of various types such as dialogue, grammar explanations and exercises, they provide the means of creating a richer learning environment. CALL also has the potential to promote autonomous learning as well as to increase student motivation (McKay & Robinson 1997).

The introduction of CALL began with two projects in 1996 — Incorporating Tested CALL Programs into Mainstream Language Courses, and Innovative Teaching of Asian Languages of Low Enrolment — Korean, Thai, Vietnamese.

The first allowed the Korean program to incorporate the CD-ROM *Korean Through English* into the first and second year courses, by turning a weekly one-hour tutorial into a computer laboratory class. The CD-ROM, developed by the Korean Ministry of Culture and Sports, contains audio and video clips and a dictionary, as well as dialogue, grammar explanations, vocabulary and some exercises. The dictionary and video clips were the components that students liked most, and they have found the dictionary useful for writing tasks, including scripts for their video projects.

In the absence of advanced CALL materials, the second project allowed the development of Web-based courseware for Korean III (http://www.arts.monash.edu.au/korean/korean3/index1.htm), consisting of authentic newspaper articles, related video clips from authentic TV news, vocabulary, grammar explanations, and background information in English. Again, a computer laboratory class replaced the tutorial.

CALL classes were successful in several aspects because they:

- increased autonomous learning;
- increased flexibility in class time but reduced contact hours for the program;
- provided more personal attention;
- encouraged peer learning; and
- fostered worldwide promotion of Monash Korean.

Increased autonomous learning

Students tried to solve difficulties on their own with the help of CALL resources before they asked the lecturer for help. Students also used the computer laboratory outside class.

Increased flexibility in class time but reduced contact hours for the program

Before the introduction of the laboratory classes, students did not have many choices about the class schedule. They had to come to class three times a week, so some students had timetable clashes. Since Korean was not perceived as a core subject, they tended to skip the Korean class to attend their other subjects. There was also no extra class available when they missed a class for some other reason. Offering CALL classes has eased these problems, with one tutorial replaced by a CALL class at each level. Further, CALL classes, which encourage students to study on their own with occasional help from a teacher, made it possible to put students from different years into the same class, while small enrolments at each level meant that only two mixed-level CALL classes could be offered rather than three. Students needed to attend only one of these classes, which suited their timetable. So, from the students' point of view, there was increased class time flexibility with no reduction in contact hours while, from the program's point of view, there was a one-hour reduction overall.

More personal attention

The teacher could give more personal attention to the students in the CALL class, and was free to help anyone who needed it — something which is difficult to do in conventional teacher-led classes. Further, when students missed a non-CALL class, CALL classes gave them the opportunity to catch up with the help of the teacher.

Peer learning

Students in the CALL classes were encouraged to help one another. In particular, the mixed-level classes allowed students at lower levels to ask students at higher levels for help. Sometimes students formed pairs to tackle difficult activities together, rather than depending entirely on the lecturer. In these ways, CALL classes have encouraged peer learning.

Worldwide promotion of Monash Korean

Korean III, which is open to the public, and other resources have attracted many visitors from all around the world, making the Monash Korean Web site one of the most linked sites in Korean language education. The benefits of making the learning materials available include not only the worldwide promotion of Monash Korean and the Korean language itself, but also the potential of connecting Monash students with Korean native speakers and learners from all around the world.

Although the CALL classes were reasonably successful, we found shortcomings and room for improvement in the following areas: compatibility between CALL programs and existing courses, the lock-step approach, accessibility, and opportunities for communication outside class.

Compatibility between CALL programs and existing courses

It was not easy to incorporate Korean Through English into the first and second year courses as the courseware was quite different in content and approach from the Monash courses. As a result, some students regarded the CALL class as an add-on, rather than an integral part of the course.

Lock-step approach

The lock-step approach used in both pieces of courseware was not suitable for the promotion of autonomous learning. Typically based on "behaviourist instructional strategies, which rely on the development of a set of instructional sequences with predetermined outcomes" (Lefoe 1998), the approach forces students to follow a learning path prescribed by the designers, rather than allow them to create their own learning path and select what they want to learn.

Accessibility

There was a problem of accessibility to Korean Through English outside class, due to its commercial unavailability and the fact that it was delivered on a CD-ROM. Students had to attend the CALL laboratory to access the program, and the laboratory was open only 9.00 a.m. to 5.00 p.m. on weekdays. Worse, access was further restricted during semester because the laboratory was used for other language classes more than half of the time.

Opportunities for communication outside class

There still remained the problem of low levels of contact with native speakers outside class. The CALL projects offered the potential for connecting Monash students with Korean native speakers and learners from all around the world, but they stopped short of providing a means of connecting them.

What all this meant was that we had to retain the benefits produced by the introduction of CALL, but find a way to overcome the shortcomings of the existing programs, and take advantage of the new opportunities.

Economies of scale

Korean has not yet appealed to the public sufficiently for student numbers to support the teaching effort. What is worse, Australian universities have recently suffered severe cuts in government funding. To ensure its viability, Monash Korean had to seek economies of scale by making courses accessible to larger numbers of students at low marginal cost without sacrificing quality. Two ways of achieving the economies of scale are cross-institutional enrolments and short courses online.

Now that Monash is the only provider of Korean language courses in Victoria, it has an opportunity to enrol students from other universities who want to take Korean courses. Since physical distance and timetable clashes constitute major obstacles to students' taking courses at other universities, it is essential to develop existing subjects in flexible multi-site delivery mode. In addition, Korean has received hundreds of enquiries from all over the world about online courses. Given the demand for non-credit short courses in distance education mode, we need to cater for students seeking such courses as well as those enrolled for university degrees.

It is, however, costly and time-consuming to develop the entire three year program in flexible delivery mode. It is also difficult to obtain grants for teaching development since many funding schemes are increasingly giving priority to subjects with large enrolments. Although we secured a grant for initial development, it was not sufficient even to develop half of a single subject. This meant that economies of scale could not be achieved in the short term. Instead, we sought to devise a way to achieve cost reduction in the short term by having fewer contact hours for staff, which would lead to economies of scale in the longer term. Our solution was to develop a resource centre on the Internet which would provide the foundation for some future multi-site online delivery, as well as making CALL materials and activities available for existing CALL classes. The more CALL classes there are for existing subjects, the lower the costs, and the more the chances of attracting students from outside Monash.

Instructional design principles

Before discussing instructional design principles, we should mention the closely related medium of delivery. Our goal is to develop a resource centre which will progressively increase the time and place independence of the courses. In other words, the centre should be able to support multi-site delivery and growth in resources. The Web is the best medium for this as it provides platform independence, easy maintenance, extensive storage, easy usage, accessibility, ready access to external resources, a means of communicating with native speakers, and short turnaround times.

The Web is also a good medium to implement our three major principles of instructional design — constructivist approaches, economies of scope and the empowerment of teachers.

Constructivist approaches

Instead of a lock-step approach, students should be allowed to create their own learning path and select what they want to learn in relation to their individual needs. This concept reflects the constructivist theories of Piaget (1959, 1980), Vygotsky (1962, 1978) and Papert (1980) who believe in focusing on students' motivation and their ability to construct learning for themselves.

As with the communicative approach in language teaching, there are various definitions of constructivism. However, all of the approaches agree that constructivism is a theory about knowledge and learning not about teaching (Reagan 1999). And most of them seem to share the following views:

- Learning is an active process of constructing knowledge rather than a passive one of receiving knowledge.
- Learning is facilitated through cooperative group work (Roblyer, Edwards & Havriluk 1997).
- Rich learning environments are essential if learning activities based on constructivist models are to be carried out successfully (Lefoe 1998; Roblyer, Edwards & Havriluk 1997).

These views have provided us with some basic directions for the development of the resource centre. Firstly, it should provide a rich learning environment, offering a wide range of learning materials to meet a wide range of students' needs, preferences and learning styles. Secondly, these materials should be structured so that students can create their own learning path. Finally, the centre should provide CMC tools to facilitate cooperation and collaboration among learners, and between learners and native speakers.

Economies of scope

Given the high cost in time and money of developing multimedia learning materials, it is critical to achieve economies of scope as well as economies of scale by making courseware components re-usable in multiple courses at low marginal cost. These issues are addressed in Clarke's educational scalability (Ip et al. 1997). Considering that there is a dearth of resources at every level in most LCTLs, economies of scope become more important. We should maximise the use of the little that is available.

Our long-term goal is to create online courses using learning materials housed in the resource centre. These should be flexible enough in content, structure, and the containing and navigation system to be easily incorporated into many courses. This high degree of flexibility could be achieved in the following ways.

Micro-components of learning materials
Learning materials are made as small as possible. These micro-components can be compared to LEGO blocks. Just as we can construct an endless variety of structures with LEGO blocks, subject designers can construct an endless variety of courseware by interlinking the micro-components. This also allows students to construct their own learning path.

Web page as versatile container
The learning material is represented in the form of Web pages. The Web page is a simple but powerful and interactive medium; simple, because it is easy to create, powerful, because it can contain a wide range of media such as text, audio and video. And interactive, because it can contain a wide range of interactive learning materials written in computer languages.

Site independence of navigation system
The navigation elements in the learning material should not assume any specific location or structure. It is essential that we can assemble micro-components in different configurations required by any particular courseware. The navigation system should allow multiple entry points and enable users to return directly to wherever they came from.

This "plug and play" approach increases not only re-usability but also "shareability". "Shareability" is important for easy collaboration, not only within the institution, but also between institutions. Collaboration enables us either to develop more materials of better quality in any given time, or to shorten development time for a given amount of materials. Sharing between institutions is very important for LCTLs in which there is a dearth of resources. This will also help to avoid the "not invented here" syndrome.

Empowerment of teachers

CALL has not yet appealed to a majority of teachers. There are several reasons for this, but the most fundamental is that, most of time, teachers do not have much influence over the content of the programs. They are usually not involved in the development of CALL materials, and so have to use externally developed programs which tend not to be highly compatible with their own courses, in either content or methodology. We should empower teachers with regard to CALL by offering them choice over materials and participation in their development, as well as helping them use the computer as a communication tool.

Choice of materials

Teachers should exercise choices over learning materials and the resource centre provides exactly this. Teachers can select what they want from among a wide range of micro-components of learning materials. With each micro-component focusing on one small area of language learning, teachers can incorporate them into their courses more easily.

Participation in development

Although teaching is very time- and labor-intensive, teachers always manage to develop their own materials. The development of CALL materials should not be an exception. The resource centre should be designed to accommodate teachers at various levels of computing skills and knowledge. As these improve, they will be able to create more sophisticated and interactive materials. The development of CALL materials has become much easier thanks to authoring software. The entry level for participation in the development of the resource centre is the ability to produce a Web page, and anyone with this ability can participate in the development of language materials.

The computer as communication tool

The Internet has brought a new dimension to CALL; in addition to interaction with pre-programmed computers, we can communicate directly with human beings. Furthermore, the use of various communication tools, such as e-mail, BBS, and chat, requires only entry level computer knowledge. As long as teachers know how to use these communication tools, they can design various learning activities which will facilitate communication between learners, and with native speakers.

The success of CALL is dependent on the empowerment of teachers. In particular, their active participation in the development of materials and their acquisition of computer knowledge and skills, are both important if materials are to be maintained, modified and updated. The resource centre has been designed to provide a very low barrier to the active involvement of as many teachers as possible.

Structure of the Resource Centre

The Resource Centre at Monash (http://www.arts.monash.edu.au/korean/centre/) is basically divided into two sections — the directory and learning resources. The former is organised into categories and sub-categories covering things like language areas, skills, topics, functions and themes (Figure 1). Students navigate their way through a hierarchy of categories to the learning resources that they want or need. In other words, they can construct their own learning path. This category-based structure not only ensures easy look-up, but also makes it simple to expand or restructure individual categories, or even the entire site if necessary.

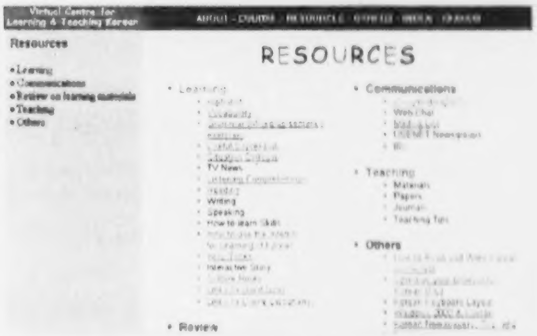
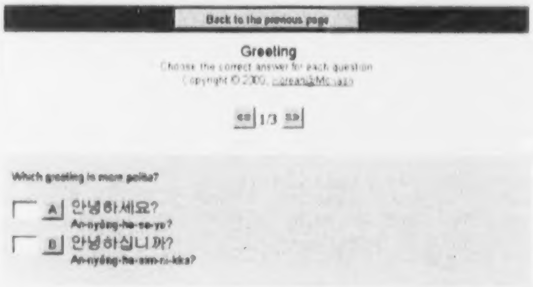

Virtual Centre for Learning & Teaching Korean
Resources
RESOURCES
• Learning
• Communications
• Review on learning materials
• Teaching
• Others
TV News
Writing
Speaking
How to learn Skill
Interactive Story
Web Chat
Teaching
Materials
Papers
Journal
Teaching Tips
Others
Review

Figure 1: The Resources section of the resource centre

The learning resources section contains resources supporting the two major uses of computers for language learning distinguished by Herrmann (1992): the agentive and the instrumental. In the agentive use, which is usually based on behaviourist theory, computers are used as tutors and take over some of the work of human teachers. The typical example of an exercise is drill and practice, with computers providing practice in the four language skills through repetition and reinforcement. In the instrumental use, which is based on constructivist approaches, computers facilitate the learning process by providing access to a word processor with its spell checker and thesaurus, or to the language materials, or by facilitating communication with other learners and native speakers. Both uses are required to create the rich learning environment in which all sorts of materials and tools will be drawn upon.

Structure of micro-components of learning material

Figure 2 shows a typical example of micro-components which are created and categorised by language areas, skills, topics, functions, themes and so on.


Back to the previous page
<<
1/3
>>

Greeting

Choose the correct answer for each question

Copyright © 2000, Korean@Monash

Which greeting is more polite?

☐ A 안녕하세요?
An-nyŏng-ha-se-yo?

☐ B 안녕하십니까?
An-nyŏng-ha-sim-ni-kka?

Figure 2: Example of micro-components

BEST COPY AVAILABLE

They are as small as possible, largely to increase incorporability, but there are other advantages also. A small size provides for fast downloads, is optimal for the human working memory, gives students more chance to finish lessons without disruptions, and requires minimum screen scrolling.

Fast downloads

When we provide learning materials over the Internet, we have to make sure that they download fast, since the download time which people can stand is known to be very short.

Optimum for human working memory

"In 1956 G. A. Miller coined the famous term, 'the magical number seven plus or minus two' to describe the number of distinct items humans could hold in the working memory" (Miller, 1956). Since then, the exact number of items has been shown to depend on a number of factors such as age, health, the type of item, familiarity with the content ... However, without doubt the capacity of the working memory to deal with distinct items is quite limited" (Tuovinen 1999).

More chance to finish lessons without disruptions

"Many learners find it is hard to learn at the office or at home because of the constant interruptions" (Horton 2000). We have to make lessons and topics shorter.

Minimum screen scrolling

Computer screens are limited in its size and Web users do not like screen scrolling (Nielsen 1999). We should minimise the need for screen scrolling.

As for the navigation system, we tried to make it simple in terms of its structure, and small in terms of the number of navigational items on display. As Figure 2 shows, the navigation system has only one button, "Back to the previous page", and one back-up link, "Korean@Monash". The "Back" button is written in JavaScript and is not hard coded to link to a specific Web page, but always takes users to the page from which they came, ensuring the site independence of the navigation system and, consequently, the greater incorporability of the micro-components into any particular courseware.

The back-up link is for people who may have entered, not through the resource centre or courseware with links to micro-components of learning materials, but through search engines. Since the *Back* button will return them to the results display pages of search engines, creating a dead end, it is important to provide a link which will allow visitors to find their way to upper level pages in the resource centre.

In addition to its site independence, this simple and small navigation system, not only allows us to utilise most of the screen for content, but also does not contain any unnecessary navigational buttons, links or wording specific to a particular course.

CMC tools

Two types of asynchronous CMC tools have been set up — a BBS and three mailing lists. The aim was to create a virtual community of Korean learners, native speakers and teachers, and to provide teachers with the means to use computers as instruments of communication. Since the Monash site had already attracted many learners and natives, it did not take long for a virtual community to be formed, while the tools have also been used in class for the purposes of communication.

Synchronous CMC tools such as Web chat or Internet Relay Chat (IRC) were deliberately not included for two reasons. Firstly, personal experience of the trial use of a Web chat, along with reports from Lewis (1996) and Turbee (1995), showed that typing skills are essential for the successful use of synchronous CMC tools, so it made sense to introduce asynchronous CMC tools first to improve students' typing skills. Secondly, synchronous CMC may be independent of place but not of time. It is not easy to arrange synchronous sessions with native speakers or students of other institutions. The virtual Korean community established through asynchronous CMC tools will make it easier to arrange synchronous sessions in future.

Web BBS

The BBS was set up in July 1999 and, as of 12 June 2000, more than 320 messages had been posted. These messages are very diverse in content — they discuss exchanging study partners, requests for help, Korean recipes, the end-of-semester get-together, scholarships, seminars, job opportunities, events and so on. The most frequently posted messages are seeking exchange study partners both online and off-line, and informal interviews with Monash students have revealed that many have found face-to-face exchange study partners through the BBS.

The unique feature of the BBS is the way it notifies new messages. When a new message is posted, an e-mail notice is sent out to the members of the new message notice list. This function is very useful in that it lessens the transitory nature of the BBS and encourages the visitors to return to the BBS again and again. Most BBSs do not provide a mechanism that encourages visitors to come back, leaving it to them to check if any new messages have been posted since their last visit. Many forget and never return. Even if they do return, it can be too late to reply. People expect prompt responses when they send e-mail messages and quickly lose interest if they do not receive a reply in a short period of time (Makin 1994). This applies to BBSs as well. The notification function for new messages is helpful in lessening the time gaps and allowing users to make timely responses to posted messages. All of this leads to a more rapid creation of the virtual community.

Mailing lists

Mailing lists were set up in November 1999 — two for learners and one for Korean language educators. They are topic-specific discussion groups to which people can subscribe by e-mail. Fifty-nine primary and secondary schools that offer Korean and all the tertiary level Korean program coordinators in Australia were notified about the lists by post or e-mail, and more than 100 tertiary Korean programs, centres, and associations throughout the world were notified by e-mail.

As of 12 June 2000, there were 111 subscribers in the beginners list (LearnKorean1-L@arts.monash.edu.au), 74 in the intermediate and advanced learners list (LearnKorean2-L@arts.monash.edu.au), and 110 in the list for educators (TKFSL-L@arts.monash.edu.au). The total number of messages exchanged through the learners lists is more than seven hundred. A special feature of the learners lists is that the author trained thirty native Korean speakers in Korea, via e-mail, on how to provide feedback on learners' writing, as well as how to reply to their messages.

Incorporation into courses

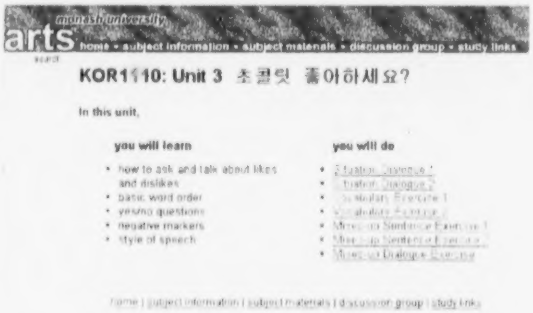
As the resource centre was designed to support various types of courses to accommodate the diverse needs of students, teachers and courses, we could incorporate it differently into first, second and third year courses in Semester 1, 2000.

However, we had to limit the instrumental use of computers due to past experience. In 1997 a project that involved running a Web magazine publishing company demonstrated to us that without a rich learning environment, this approach creates a great deal more work for the teachers. The resource centre was not sufficiently developed, nor were needed resources, like dictionaries and grammar reference books, available commercially. As a result, we were not able to create projects which would meet the demands of authentic communication within authentic settings, because we could not require students to go beyond their linguistic resources. In addition, project or task-oriented approaches generally require more work from students and teachers than other methods. Further, if they are employed in the absence of a rich learning environment, there will be crippling increases in workload, with students seeking help from teachers as the most accessible — or in some cases the only accessible — resource.

Our solution has been to use more manageable small-scale projects until we build up sufficient resources, or until commercial resources become available. One merit of this solution is that we can gain the experience and skills required for the successful instrumental use of computers. Such use — of CMC tools, in particular — is still in its infancy and is largely uncharted territory. From this point of view, gradually increasing instrumental use over time seems more desirable.

First year course

The coordinator of the first semester subject created a subject Web site (http://www.arts.monash.edu.au/subjects/korean/kor1110/) to provide guidance for beginners who generally had no experience with CALL materials (Figure 3). This site was created with a basic knowledge of Web page authoring acquired in five half-day sessions of a workshop run by the Faculty of Arts just two months before the semester began. Although a template for the Web site was provided, the main reason for her success was that the resource centre served as a learning materials database, which meant that all she had to do was to make links to ready-made learning materials in the resource centre and to external Web sites of mostly Korean cultural information.


monash university
arts
home • subject information • subject materials • discussion group • study links

KOR1110: Unit 3 초콜릿 좋아하세요?

In this unit,

you will learn

- how to ask and talk about likes and dislikes
- basic word order
- yes/no questions
- negative markers
- style of speech

you will do

- Situation Dialogue 1
- Situation Dialogue 2
- Vocabulary Exercise 1
- Vocabulary Exercise 2
- Mixed-up Sentence Exercise 1
- Mixed-up Sentence Exercise 2
- Mixed-up Dialogue Exercise

home | subject information | subject materials | discussion group | study links

Figure 3: Web site for the first year semester subject

CMC tools were not used because the students were complete beginners and it was thought premature to expose them to the tools. Instead, we decided to introduce them in semester 2.

The students' response to CALL classes was very positive and encouraging. Class observations and informal interviews revealed that students engaged actively in CALL materials reported that they were useful, fun, easy to use, and reinforced what they had learned in class. They also commented favourably on the fact that they could work on the materials at their own pace, and at times and in places that were convenient to them. These views were confirmed by a subject evaluation questionnaire conducted at the end of the semester.

Second year course

Since second year level students were already familiar with the use of CALL materials, no specific Web site was created. In each CALL class, the teacher simply told the students to use certain CALL materials available in the resource centre. Once they finished them, they were encouraged to create their own learning path using the resources available at the centre and external Web sites.

The teacher also introduced the beginners' mailing list (LearnKorean1-L) and asked

BEST COPY AVAILABLE

students to post self-introduction and writing assignments so that they would have opportunities to communicate with native speakers and learners in other institutions. In the case of the Web BBS, the teacher did not give any particular instructions, though students knew that it was available since it had been introduced in the previous semester. What all this means is that the use of the mailing list and the Web BBS was not tightly incorporated into the course.

According to the results of a subject evaluation questionnaire, students perceived CALL classes very positively. Out of eight students, six (75%) disagreed or strongly disagreed with the proposition that the use of computer-assisted learning materials was not worth the time and effort, while seven (87.5%) disagreed or strongly disagreed with the proposition that they not use CALL materials.

The mailing list and the Web BBS were successful in connecting Monash students with native Korean speakers who provided feedback for the work of three of the students' writings. In addition, students were involved in computer-mediated communication with native speakers and learners from other institutions in various ways — regularly reading messages posted at the mailing list (100%) or the BBS (80%), posting messages to the BBS (55.6%), and exchanging private messages with correspondents other than classmates (44.4%).

In addition to opportunities for communication, the CMC tools provided more input as students could read what other students had written for the assignments. Three students commented in the questionnaire that this was very helpful.

Third year course

The CALL class for the third year subject was mainly organised to facilitate students' weekly oral presentations and to follow up the classroom discussions that were the core of the subject. For this, the mailing list for intermediate and advanced level learners (LearnKorean2-L) was used for two main purposes.

Firstly, a copy of each student's oral presentation was distributed before the presentation. If students were to engage in lively discussions in the classroom, it was vital for them to prepare themselves beforehand, particularly as the presentations were bound to contain many new or unfamiliar words and structures. This had never been easy in the past. Although students were asked to distribute a copy of their presentations a week in advance, they usually failed to do so. Instead, the presentations were regularly distributed in class, giving the other students no time to prepare. This problem of comprehending other classmates' presentations, also reported by Kubota (1999), could be overcome by use of the mailing list.

Secondly, the mailing list provided opportunities for students to elaborate on what they had just discussed in class and to continue discussions online. The writing activities were carried out during CALL classes where students received personal attention and help from a teacher, or individually outside class hours. These activities provided not only writing practice, but also much reading practice. According to a subject evaluation questionnaire, many students felt that they had improved their reading as well as writing skills. Of the six topics presented through the mailing list, native speakers posted opinions on four.

The subject evaluation showed that the use of a mailing list was very successful, with 83.3% agreeing or strongly agreeing that they enjoyed using it for communication, both with classmates and with people from all around the world, 66.7% agreeing or strongly agreeing that posting presentations and responses helped develop their ideas, and 50% agreeing or strongly agreeing that they would use the list after finishing the course (the other 50% was neutral).

The mailing lists were also used as a separate vocabulary building activity. A weekly vocabulary service exploited cooperation between teachers, native speakers and students. When the lists manager sent out ten loan words (mostly English) to the lists each Monday, native Korean speakers constructed sentences using each loan word and posted them back to the lists. In turn, the third year students provided English translations for the Korean sentences and posted them back. Not only Monash students but also other learners on the mailing lists found this service helpful in building up vocabulary.

Incorporation into development of resources

The Korean resource centre, and the CMC tools in particular, can create not only a better learning environment but also a better development environment. It can be used

- To obtain feedback on new learning materials.
- To provide a wide range of reading materials.
- To encourage collaboration with other developers and teachers.

All this can contribute to the development of high quality learning materials and a reduction in development cost and time.

CMC as a source of feedback and information

Whenever new learning materials were added to the resource centre, members of the mailing lists, both learners and teachers, were informed and asked to provide feedback. Many of them responded and contributed to the improvement of the materials. The mailing lists also worked as a good means of obtaining information, such as current fares on public transport in Korea and the expressions that shopkeepers use to greet customers. Many native speakers in Korea responded very promptly to requests.

Messages between the lists manager and native speakers also provided learners with materials for reading comprehension as they were all conducted in Korean, teaching students about everyday aspects of Korean society, or updating their knowledge.

CMC as a source of learning materials

A wide range of messages were sent through the mailing lists, including discussion on specific topics, learners' experience of learning Korean and comments on learning materials. These can be developed easily into learning materials, with a few error corrections and minor modifications, and incorporated into the resource centre in the form of Web pages. Discussions between students not only provide the existing group with reading materials but will also make useful reading for students in future years, since most messages, written by students themselves, reflect their proficiency levels. It will not be long before we accumulate a considerable amount of reading materials on a variety of topics which will help to meet a wide range of students' interests.

Other types of messages can also be used to develop learning materials. For example, learners' experience of learning Korean can be used to develop information on how-to-learn skills. Other sources of valuable information are other learners' comments and reviews of learning materials, such as textbooks, CALL programs and reference books — information requests for good learning materials are some of the most frequently asked questions on the Internet.

Collaboration and professional development

Given the high cost and time-consuming nature of CALL materials development, it is essential to collaborate with other developers and teachers and share resources. By using the mailing list of Korean educators, an online workshop on the development of Web tasks ran for about two months, with eleven participants ranging from postgraduate students, to sessional teachers, lecturers, and professors from Australia, Korea, and U.S.A. The participants produced tasks that require students to go to a Korean Web site and gather information. This particular topic was chosen for two reasons. Firstly, it allows us to create language activities which are very close to real life tasks. Secondly, it is very time-consuming to locate suitable Web pages, especially for beginners, so this exercise demonstrated the benefits of collaboration.

In addition, the workshop was not just significant for collaborative work, but functioned as professional development for in-service and pre-service teachers as well. There is an urgent need for specialists in teaching Korean as a foreign or second language (Sohn 1999), but there are not many opportunities available for professional development in the area. Although the exchange of ideas, learning materials and lesson plans via BBSs, mailing lists and Usenet newsgroups can help to ease the problem (Cho 1997), it cannot offer as many benefits as the more structured form of professional development training, such as online workshops.

The workshop was conducted openly through the mailing list and proved beneficial to more than the eleven participants, as many other members of the list reported on its usefulness.

Conclusion

This article has explored how to develop an enriched learning network which supports existing courses as well as providing a foundation for future distance education. The interface design of the resource centre is unique in the re-usability of learning materials and its support of multiple entry points for teachers. As well as in its progress along a continuum in the development from consumers of ready-made materials to expert producers of sophisticated interactive learning materials. The various types of learning materials developed and the CMC tools mean that it is possible to incorporate the material into courses of different levels in a way which best suits the students and teachers of a particular course.

The article has also explored how to introduce the instrumental use of computers for better learning experiences for students, without straining teaching staff too much. Many teachers are apprehensive of full-blown project-based CALL since it requires strong computer skills and changes in teaching methodologies and assessment, and involves difficulties in integration into a syllabus (Debski & Gruba 1999). The gradual integration approach, which starts small, identifies weak and strong points, and continues to build on strength and experience, was presented as a solution.

The Korean Resource Centre is designed not only to grow and evolve, but also to involve many teachers and developers. Collaboration and cooperation with those within and outside our own institution seems to be a good way to overcome the problem of limited human and learning resources from which many LCTLs suffer. The CMC tools have provided a means of receiving feedback on the developed learning materials, as well as opportunities to work with other teachers or developers.

The model proposed, however, is not limited to LCTLs, but can easily apply to other language programs as they develop enriched networked learning environments.

Acknowledgements

The author would like to thank Professor Uschi Felix and Douglas Ling for their invaluable comments and support. This work was supported by the Korea Research Foundation Overseas Korean Studies Grant (Grant No: 00-C-06).

Biodata

Dr. InJung Cho is a research fellow of the School of Asian Languages and Studies at Monash University, Australia. He has taught Korean for 14 years and co-authored two listening books which were the first of their kind in the field of Korean language education. His current interests include CALL, second language acquisition, and translation.

References

Barko, I. (1995) "Low candidature LOTE courses in universities", In Baldauf, Jr., R. B. (ed.), *Viability of Low Candidature LOTE Courses in Universities*. Canberra: Australian Government Publishing Service.

Barson, J. (1997) "Space, time and form in the project-based foreign language classroom", in Debski, R., Gassin, J. and Smith, M. (eds.), *Language Learning through Social Computing*. Applied Linguistics Association of Australia Occasional Papers Number 16, 1-38. Melbourne: ALAA & the Horwood Language Centre.

Cho, I. (1997) "Internet and Korean education: New horizon", (in Korean), *Proceedings of the Second International Conference of Korean Studies: Koreans Abroad and the Next Generation,* Vol. 6, 34-53. Kyemyong University, Taegu, 25-28 June 1997.

Chun, D. M. and Plass, J. L. (2000) "Networked multimedia environments for second language acquisition", in Warschauer, M. and Kern, R. (eds.), *Network-based Langage Teaching: Concepts and Practice,* 151-170. Cambridge: Cambridge University Press.

Debski, R. (1997) "Support of creativity and collaboration in the language classroom: A new role for technology", in Debski, R., Gassin, J. and Smith, M. (eds.), *Language Learning through Social Computing*. Applied Linguistics Association of Australia Occasional Papers Number 16, 39-66. Melbourne: ALAA & the Horwood Language Centre.

Debski, R. and Gruba, P. (1999) "A qualitative survey of tertiary instructor attitudes", *Computer Assisted Language Learning*, 12 (3), 219-239.

Hermann, F. (1992) "Instrumental and Agentive Uses of the Computer: Their role in learning French as a foreign language", unpublished Ph.D. Dissertation, Stanford University.

Horton, W. (2000) *Designing Web-based Training*, New York: John Wiley & Sons.

Ip A., Canale, R., Fritze, P., and Ji, G. (1997) "Enabling re-usability of courseware components with Web-based virtual apparatus", paper presented at the 1997 ASCILITE Conference in Perth, Australia, 7-11 December 1997. [Online] http://www.ascilite.org.au/conferences/perth97/papers/Ip/Ip.html

Kubota, R. (1999) "Word processing and WWW projects in a college Japanese language class", *Foreign Language Annals*, 32 (2), 205-217.

Lefoe, G. (1998) "Creating constructivist learning environments on the Web: The challenge in higher education", paper presented at the ASCILITE 98 conference at University of Wollongong, Wollongong, 14-16 December 1998. http://www.ascilite.org.au/conferences/wollongong98/asc98-pdf /lefoe00162.pdf

Lewis, M. (1996) "The Multi-User Domain as a communicative learning tool", in Brochardt, F. L., Bradin, C. L., Johnson, E., and Rhodes, L. (eds.), CALICO *'96 Annual Symposium Proceedings of the Computer Assisted Language Instruction Consortium*, 164-167, Durham, North Carolina: CALICO and Duke University.

McKay, P. and Robinson, M. (1997) "Language teachers and technology: The literature and teacher perceptions", in McMeniman, M. and Viviani. N. (eds.) *The Role of Technology in the Learning of Asian Languages*, 11-28. Canberra: Language Australia.

Makin, L. (1994) "Learner telesupport: Language advising by e-mail", in Esch, E. (ed.) *Self-Access and the Adult Language Learner*, 83-96. London: Centre for Information on Language Teaching and Research.

Miller, G. A. (1956) "The magical number seven plus or minus two: Some limits on our capacity for processing information", *Psychological Review*, 63, 81-97.

Nielsen, J. (1999) *Designing Web Usability*, Indianapolis, Indiana: New Riders Publishing.

Papert, S. (1980) *Mindstorms: Children, Computers, and Powerful Ideas*, New York: Basic Books.

Piaget, J. (1959) *The Language and Thought of Child*, London: Routledge & Kegan Paul.

Piaget, J. (1980) *Six Psychological Studies* (3rd ed.), Brighton, Sussex: The Harvester Press.

Reagan, T. (1999) "Constructivist epistemology and second/foreign language pedagogy", *Foreign Language Annals*, 32 (4), 413-425.

Roblyer, M. D., Edwards, J., and Havriluk, M. A. (1997) *Integrating Educational Technology into Teaching*, Upper Saddle River, New Jersey: Merrill.

Sohn, H. (1999) "Whither teaching of Korean in Australasia in the next decade: In comparison with American experience", *Proceedings of the First Korean Studies Association of Australasia Conference*, 13-25. University of New South Wales, Sydney, 27-28 September 1999.

Tella, S. (1996) "Foreign languages and modern technology: Harmony or hell?" in Warschauer, M. (ed.), *Telecollaboration in Foreign Language Learning*, 3-17. Honolulu, Hawaii: University of Hawaii Press.

Tuovinen, J. E. (1999) "Pointers from cognition research to multimedia use in GLOBAL flexible learning", paper presented at the Monash conference of Internalisation, Flexible Learning & Technology in Melbourne, Australia, 27-29, September 1999. [Online] http://www.monash.edu.au/groups/flt/1999/NewPapers/juhani_tuovinen.pdf

Turbee, L. (1995) "Mundohispano: A text-based virtual environment for learners and native speakers of Spanish", in Warschauer, M. (ed.), *Virtual Connections*, 233-234. Honolulu, Hawaii: Second Language Teaching & Curriculum Centre.

Vygotsky, L. (1962) *Thought and Language*, Cambridge, MA: M.I.T. Press.

Vygotsky, L. (1978) *Mind in Society: The Development of Higher Psychological Processes*, Cambridge, MA: Harvard University Press.

Going online:

Can language teachers go it alone and is it worth the heartache?

Sally Staddon
School of European Languages and Cultures,
Monash University

Name of site:	Beginners French at Monash: supplementary material for French Studies Year 1 Level 1 at Monash University, Melbourne. Students study one or both semesters of the course. Number of students enrolled: 80.
Name of developers:	Sally Staddon (overall design, pedagogy, content) Mega Media (programming and graphics)
Mode of delivery:	An add-on to face-to-face teaching for self-access study, revision, feedback and written assessment.
Budget	A grant for A$4,000 from the School of European Languages and Cultures was subsequently supplemented by a further grant of A$14,880 from the Faculty of Arts. In addition, six months study leave was awarded to Sally Staddon to work on the project.
URL of site:	http://www.arts.monash.edu.au/subjects/french/frn1110/ (or .../frn1120/)

Context and rationale for development

For many teachers of languages other than English in the Australian tertiary sector today, the reality is that we teach larger groups and have shorter class contact time. It is tempting, therefore, to fall back on Computer Assisted Language Learning (CALL), Computer Mediated Communication (CMC) and the Web to plug the gaps and try to resolve some of the problems. However, in the same way that many articles about CALL stress the need to avoid being technology-driven, it is also important not to be driven solely by the need to compensate for lost contact hours and large groups. The pedagogical need for, and value of, what is intended must drive the creation of any CALL materials.

That said, the developer must also consider financial and time development costs, institutional policy (at Monash University, for example, an institution-wide move towards flexible delivery), the pedagogical value of what can be achieved with (probably) limited resources and what the technology can offer. In other words, do I have to or want to do something and, if so, could I achieve the same pedagogical aims as effectively using photocopies, transparencies and cassettes? There is nothing inherently wrong in using a well-designed hand-written transparency. But there is also a place for computer-based learning materials. The focus of this chapter is, therefore, on how the Web can be profitably exploited to provide a stimulating language learning environment for students and at the same time help compensate for lost hours and large numbers.

Beginners French at Monash University currently consists of about 80 students with no previous knowledge of French, or with up to three high school years of French. The four contact hours per week comprise a one-hour workshop for up to 40 students, and three hours where smaller groups permit intensive integrated work aimed at developing all four macro-skills (reading, writing, listening, speaking). This split between large and smaller groups is not the most desirable in terms of facilitating language acquisition and social bonding. (It should be noted, however, that in its first semester of operation, this structure has produced better results and a higher level of student satisfaction than had been anticipated.)

One rationale for the development of the Web site and related learning activities has been to compensate for this structure by creating a "safe", non-threatening environment for language learning, student–student and student–tutor communication and feedback. The site also offers flexibility, albeit limited, that a face-to-face only course cannot.

Furthermore, it is hoped that the Web site will be used as an exemplar of good practice and a design template, not only for tertiary colleagues, but also for local primary and secondary teachers, for some of whom the Department of French Studies already provides language upgrading courses.

When the site was launched in second semester 2000, students received a formal "show and tell" induction session and were then required to access the site in their own time, either from work stations within the University or from home. Within the first few weeks of semester they were asked to use the bulletin board to display (and, therefore, submit for assessment) a simple piece of writing, so that they learnt how to use the most complex part of the site. The aim of this exercise was to ensure that technological hitches and misunderstandings were dealt with early on, and to demonstrate to students the potential of a bulletin board (and the site as a whole) as a language learning tool.

This induction process will be repeated early in each semester involving appropriately geared learning tasks that require students to access and use bulletin boards and contribute to them.

Aims of materials

How will the Web site help meet learning objectives? Is there anything else cheaper and/or quicker and equally effective that I could do to meet those learning objectives? What does the Web allow me to do that cannot be done, or be done better, some other way? How can a Web site help to balance the time "deficit" and the student "surplus"? What am I not doing, or not doing enough, in class at present?

Whilst pedagogy should come first, in practice there is often no clear line distinguishing pedagogical, technological and even administrative criteria. A well-designed Web site should aim to meet pedagogical aims, create a more flexible learning environment and avoid unnecessary technological complexity. The Beginners French Web site, therefore, aims to enhance the language learning process by offering additional forms of exposure to the target language (comprehensible input) and additional forms of production of the target language (comprehensible output). It also achieves this aim by adding a different learning environment, which is attractive to many students and which offers the flexibility needed by an increasing number of students. It does not aim to replace face-to-face contact time, but it does redress the problem of the time "deficit" and student "surplus" factor. In short, it allows the language learning objectives of the subject to be met more effectively for more students than might otherwise have been the case.

The Beginners French Web site aims to expose learners to the authentic written and oral French of native-speakers (via links to other Web sites, some of which are integrated into language learning activities) and to the written French of tutors (native and near-native speakers of French) and learners within the Web site itself. The site also invites, and in some instances requires, involvement via contributions to bulletin boards, a "gallery space" (where students' written work — particularly collaborative work — can, with the students' agreement, be exhibited), and e-mail messages to tutors. In the longer term, it will include interactive written and audio exercises and the creation of a home page for each student.

Language acquisition does not, however, depend solely on creating opportunities for exposure to comprehensible input (Web sites, tutor messages) and producing comprehensible output (contributions to bulletin boards and gallery). As suggested earlier, an environment conducive to language learning must also be created. Kötter et al (1999) state that "risk-taking is acknowledged to be a characteristic of successful language learners" and consider whether "online activities facilitate and promote risk-taking". They report that Sproull and Kiesler (1991) found learners using e-mail "talk more freely than they would in person". Risk-taking is most likely to occur in a safe, non-threatening environment. The Web site, therefore, also aims to contribute to the creation of an environment (Web site and classroom together) which promotes a sense of community and facilitates and encourages communication so that fear of failure and loss of face become less of a concern. It may be that the chronically shy or fearful take refuge in the electronic medium and never take risks orally. On the other hand, it may be that, by first taking risks in writing (particularly in quasi-oral writing) and gaining confidence in one medium, students will feel more confident to do so in oral classroom activities.

In the USA Chun (1994), for example, has used computer networking to facilitate the acquisition of interactive competence. Her main thesis was that "conducting class discussions (real time–synchronous) on a computer network is an effective method for increasing the interactive competence of first-year foreign language learners because it provides students with the opportunity to generate and initiate different kinds of discourse... allows students to play a greater role in managing the discourse..." (p.17). Chun found that these computer-assisted class discussions encouraged intense collaboration and increased student participation. Students who were shy or non-participatory were more likely to contribute in a less-threatening environment which gave them more time to think through their contribution and think about those of their peers. Interestingly, she found that several quieter students were among the most prolific. Her students also exhibited the ability to give feedback and to help their peers, and she cites more learner-centred and more "honest" communication, improved thinking and creativity as advantages of Computer Aided Class Discussion (CACD). Whilst it is not possible to incorporate synchronous class discussions into the Beginners French Web site for resource and logistical reasons, the lessons learnt from Chun's work can also be applied to asynchronous discussion via bulletin boards, the aims of which are precisely to create a more learner-centred environment and to promote communication in French.

Pedagogical approach

In designing any language learning Web site, a key consideration is the provision of comprehensible input. Some designers (for example, Blake 1999, the designer of *Nuevos Destinos*,) believe that CALL materials should be instruction-free with intuitive or icon-dependent navigation (i.e. free of incomprehensible target language "noise"). Intuitive, clutter-free Web sites are sometimes more aesthetically pleasing, if not always as intuitive nor as clutter-free as they are purported to be. The author believes, however, that navigational instructions and basic information can be designed as simple but useful language input, especially for beginners, and that Web site designers, therefore, need not necessarily go for the text-free options. For example, instructions may be designed to expose learners to imperatives (*cliquez*–click; *effacez*–delete) and to common items of vocabulary (*ici*–here; *retour*–return) and to more complex but guessable-in-context site information. For beginners in particular, this exposure to language which, from context or trial and error, can be turned into comprehensible input, may prove to be useful, motivating and reproducible.

Chapelle (1998) describes how research has shown that highlighting input in CALL multimedia software and manipulating task demands can increase the likelihood of learners noticing particular syntactic or semantic elements. For maximum effectiveness, it is argued, input should be enhanced. Whilst feasible and desirable when designing language learning CD-ROM-based material, this is not possible when using links to external sites. Instructions can certainly be manipulated but external Web sites cannot. It could be argued, therefore, that tasks with unpredictable outcomes, while fun and motivating, may not necessarily provide comprehensible input and, accordingly, may not facilitate language acquisition.

So how can the unpredictable be made more predictable and therefore more valuable? The University of Texas at Austin's Beginners French Web site (http://www.lamc.utexas.edu/fr/home.HTML) sends learners to visit the Paris Match Web site (http://www.parismatch.tm.fr/) to find the cover page for their date of birth. No one can predict exactly what that cover page will show. Yet much is predictable and therefore exploitable input. The date and number of the issue will appear. There will be one or more images which can be described in simple terms. There will be a headline and sub-headings which can be copied and reported, and the image may convey happiness or sadness. In other words, a randomly-generated document with limited written text can become comprehensible input and, within carefully defined tasks, lead to comprehensible output. This could take the form of a simple oral or written report to the tutor or it could be a report to the peer group via a bulletin board. Students could collate and analyse the types of images, number of different issues, range of dates, etc and report in class or electronically in French.

Bulletin board activities in the Beginners French Web site have been designed to encourage written communication in French. Sometimes this will involve quasi-oral communication (social chat), at other times more formal reading or writing may be involved (reading administrative messages, assessed work). Even in non-assessed communications within the bulletin boards, students will be encouraged to write in French. Chun (1994) found that there was almost no recourse to English during the synchronous discussions and suggests that this was because participants knew that everyone (students and tutors) would be reading all the messages. It may take longer to communicate (in the context of non-assessed asynchronous discussion) but at least this communication can take place in an environment in which it is normal, maybe natural, to communicate in French.

Technical approach

Before the receipt of a small grant halfway through this project, the aim was to produce a largely text-based Web site that was simple to create, modify and access. Interactive features, such as bulletin boards, were to be "borrowed" from colleagues at Monash. Every attempt was to be made to avoid reinventing wheels and to avoid falling into the known traps. The aim of this section is not to discuss what can be achieved with the assistance of a knowledgeable and creative programmer but, rather, to focus on what anyone with basic computer literacy (word-processing and familiarity with accessing Web sites) can achieve with a reasonable supply of time and patience.

Jakob Nielsen (1998a) (formerly one of Sun Microsystems' Web gurus) proposes that "the Internet has to be better than reality". A Web site, too, should be either better than or different from the classroom and the textbook. Lamy (1997) suggests that the more text-heavy and presentational a site is, the more possible it is that it could achieve its aims equally well by hard copy. Much depends on the site's context. The Beginners French site is text-heavy because it also has a public relations function providing information for secondary teachers and prospective students, and because it will eventually all but replace the subject booklet. It does, however, already contain interactive features such as the bulletin boards and, in the longer term, will include interactive audio and written exercises. Again, in order not to reinvent the wheel, resources already developed at Monash University or elsewhere are used. Some of these are featured in Part 2 of this book.

If a site is to be user-oriented, the designer should start with the target users in mind — language learning needs, computer literacy and access to the Internet. The designer with limited knowledge, time and budget needs to achieve his/her aims in the simplest way possible — a way that will work across a maximum number of platforms and browsers, quickly and clearly — bearing in mind that if the student-user can do something useful and interesting straightaway, they are more likely to come back for more.

Much basic advice on Web site design in general, language learning Web sites and using HTML is, of course, available on the Web. Claire Bradin's Web site was both useful and motivating and led to Nielsen's work, which is essential preliminary reading. Peter White's paper from the 1998 Congress of the Applied Linguistics Association of Australia provided useful information and links. (The URLs of these sites are included in the references). The site of Peter Stagg (instructional designer in Monash University's Faculty of Arts) also contains links to many useful sites and provides valuable design advice. It is essential to visit as many language learning and "how to" sites as possible before embarking on detailed design in order to see what is already available and to see what works and what does not (see Part 2 of this book for many examples). Furthermore, many Web designers working in the area of language learning are willing to "lend" material or to have their work linked to another site. The new designer need not assume that they have to create material. But they must also beware of over-reliance on other sites and servers which, notoriously, are always down when students need to access them.

The following general design criteria evolved:

- User-friendly appearance and use — Is the first encounter motivating or frustrating? Are end-users given an adequate level of technical know-how e.g. how to use/send/download, where to find accents?
- Appropriate level of technology — Browser version, plug-ins, etc, should not be too high level for the target users and their computers. A middle rather than higher or lower common denominator may be appropriate.
- Transparency — It must be obvious what needs to be done next and how.
- Avoid big blocks of text — They are neither pleasant nor easy to read, so the reader tends to scan for key points only.
- Aim for minimal page length — Despite the above point, frequent movement between pages can become tedious. Sometimes it is better to squeeze in more per page to avoid excessive page-turning and printing costs.
- Moderate use of highlighting (colour, bold) for key points and links.
- Limited use of graphics — Only when of pedagogical value and always use alternative text for those with less powerful modems who disable their graphics.
- Clear summary page or site map — The first screen should give a clear indication of what the site is about, its target audience, and how to proceed.
- Print and bookmark friendly pages — Frames should be avoided on pages where the user might want to bookmark or print the content. So, too, split screens which necessitate scrolling — It can look messy and be frustrating, especially if

the user does not realise they need to scroll.

- Avoid plug-ins and slow-loading graphics where possible — The designer should consider how much they add to the site and if as much (or nearly as much) can be achieved without them. Include time-estimate warnings where an audio plug-in, for example, is essential.
- Up-to-date links — Links that are infrequently updated should be avoided and all links should be checked regularly.
- Accessible menus — Menus should be easily accessed and it should be simple to exit from activities within the site.

Another key design consideration, of particular importance to a beginners' level site, is the issue of target language versus "home" language. For the Beginners French at Monash site, it was originally decided to use English on pages dealing with administration or where non-French speaking surfers might find themselves, and to use French on restricted access pages. However, this did not take into account the need to explain in French to real beginners the use of, for example, bulletin boards. For many users, their understanding of bulletin boards is intuitive, but icons or key words are not always sufficient. It became clear that sometimes it would be necessary to use both French and English on a page, in order to ensure comprehension of instructions and, at the same time, provide comprehensible input. Pop-up boxes containing translations were ruled out because, as graphics files, they take up time and memory that not all users and their computers have to spare. At this point, the value of having a programmer on-call became apparent. The Web editor, Dreamweaver, was discovered to offer "layers" which could be used to provide a text-based translation simply by moving the mouse over the relevant text. The non-expert Web manager can modify text by cutting and pasting code and inserting the translation.

The easiest route to simple and effective Web site design is, arguably, to use a WYSIWG (What You See Is What You Get) editor such as FrontPage or Dreamweaver. It is not the purpose of this article to discuss their relative merits. However, experience and advice suggest that for a straightforward, largely text-based site, FrontPage may be the easier to use. For those with more knowledge and more ambitious plans, Dreamweaver may be more appropriate. In either case, however, it is useful for the designer to have some basic knowledge of HTML coding in order to help them understand what has gone wrong and to make simple corrections or changes. (Both editors, but particularly FrontPage, seem to have the unfortunate habit of adding superfluous code which does not become apparent until something goes or looks wrong.)

Acquiring a basic knowledge of HTML need not be as daunting as it sounds. There are many books and sites that claim to teach basic HTML. One of the most reliable

is probably the National Center for Supercomputing Applications' Beginner's Guide to HTML at
http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimerP3.HTML#TA.

The author also found that by using the free HTML editor, NoteTab Light (http://www.notetab.com/), she was able to begin writing Web pages and learn basic HTML code at the same time. NoteTab Light is not, initially, as quick and easy as FrontPage, but it does mean that the new Web site designer learns as they design. Pages produced in NoteTab Light can subsequently be edited in FrontPage and vice versa.

Incorporating interactivity into a language site is undoubtedly more of a challenge for the non-expert. As already suggested, bulletin boards (or newsgroups or e-mail) can provide peer group interaction and collaborative learning. Interactive exercises can be created using authoring tools such as Hot Potatoes (http://Web.uvic.ca/hrd/halfbaked/) and Larccalls (http://www.arts.monash.edu.au/lc/larccalls) and then incorporated into the site. These, and other similar tools, provide a template into which the language teacher can build exercises targeting the specific needs of their students. Some allow for audio and video, although the problems associated with plug-ins and downloading time do not always make these viable options. Inevitably template-based authoring tools will never satisfy all teachers and learners all of the time, but they do represent a much quicker and cheaper alternative to the go-it-alone option. Some, such as those referred to above, have been developed with input from language teachers, and actively encourage user feedback.

Structure

As can be seen in Appendix 1, much of the material contained in the Beginners French site is text that could be displayed just as well (and, at present, still is) in a subject booklet. The site does, however, go further than mere page-turning. Page-turning allows large amounts of information to be easily accessed by anyone. Up-to-date links provide a service to all visitors to the site, may allow light relief from other work, and allow students to get quickly to sites needed to complete assessment tasks, without having to waste time using search engines or typing in URLs.

In terms of interactive language learning and group cohesion, of more interest are the bulletin boards, help and feedback pages, gallery space and interactive exercises. Within the password-protected bulletin boards there are different threads for different purposes. In this case, threads cover administrative matters, students seeking help from other students or from the tutor, feedback and comments on assessed work from tutors, a tutor-free café, and specific assessed tasks involving, at an early stage for example, introducing oneself and, at a later stage, collaborative writing tasks such as stories and poems. The gallery space is intended to display students' work. This is particularly motivating when students have collaborated to produce work that is often highly creative and/or amusing and has taken them beyond their expected attainment level in French. A future development will be the inclusion of student home pages, including digitised photos and text which can be developed as the students' French skills progress. Interactive exercises, not yet incorporated at the time of writing, will provide online aural and reading comprehension testing and practice (Larcalls) and grammar exercises (Hot Potatoes). The latter will be added as required to reinforce feedback from tutors, or to complement a grammar explanation given in response to a query raised in the bulletin boards.

Other activities planned to make use of bulletin boards or the gallery space and external Web sites, include weather reporting, sending virtual postcards, timed information retrieval quizzes designed to send groups of students to a large number of informative French Web sites from which they must retrieve specific information and report back, the preparation of advice for tourists for different French regions or towns, and reports on francophone sites that are "worth the surf" (*vaut le détour*). These and other similar activities can also be returned to the "conventional" classroom by means of oral reporting, presentations, etc.

Student feedback/perceptions

There is an increasing amount written about the evaluation of language learning Web sites in the CALL literature and online (see White 1998 for further references). Any process of evaluation should examine how the Web site uses the technology, the appropriateness of the technology for the target users, the site's language learning objectives and actual outcomes, the user-friendliness of the site and its content and aesthetic design.

Chapelle (1998: 29-31) goes further and lists research questions developed to illustrate how evaluation procedures can be developed to parallel principles of design in CALL:

- Is there evidence that learners attended to salient linguistic characteristics of the target language input?
- Do learners choose to see the modifications of linguistic output? (And do they use help and feedback facilities?)
- Do learners produce comprehensible output?
- Is there evidence that learners notice errors in their output?

- Do learners correct their linguistic output?
- To what extent do the learners interact with the computer to engage in modified interaction focusing on form and meaning? (This applies to interactive exercises rather than to communication via bulletin boards, etc.)
- Do learners work toward communication-oriented goals?

Whilst it is too early to comment here on the performance of the Beginners French site, evaluation will follow some, if not all, of the lines suggested above. If language learning objectives are not met, appropriate use of technology is important only in so far as its misuse may have contributed to the failure of the Web site to perform as intended.

Other areas of empirical research based on observation and recording of use of the site include: the use of register; the type of discourse (a halfway house between oral and written?); the use of target versus first language; the transfer of text-based communicative skills to the oral classroom; the evolution of student attitudes and behaviour towards the site; and the role of the Web site in collaborative learning.

In 2000, when introducing 80 first year students to the Language Centre's CALL lab and the multi-media materials available there and on the Web, for the first time all students indicated that they had some previous experience of using computers and of using the Web and showed a greater desire than in the past to try out the material presented to them. This augurs well for the integration of the Beginners French site into the French Year 1 Level 1 program — some of the psychological and physical barriers to using computers in general, and the Web in particular, may have already been overcome. A thoughtfully-designed Web site that is integrated in a logical and meaningful way into the language learning program can only add to this positive attitude and, in turn, enhance the language learning process.

Personal observations/experience

The Beginners French at Monash Web site went online in second semester 2000. Its use has been partially integrated into the teaching program in 2000, with the intention of full integration and the commencement of formal evaluation in 2001.

On a personal level, involvement in the design and development of the Web site has provided the opportunity to understand and use basic HTML and to realise that it is certainly not impenetrable high level code. It has also, however, underlined the fact that the non-expert, who does not have higher-level expert support, must tailor their design realistically. But this is not necessarily a bad thing. It obliges the designer to assess what is really needed and what is mere decoration. As students become more and more familiar with the Web and more conscious of their language learning needs, bells and whistles may become less of an attraction (they may indeed be more of an irritation) whilst a site that is clearly laid out, easy to use, and helps them meet their language learning goals, may be more appreciated. Students can always take time out to find the bells and whistles on sites on which the main aim is to entertain or to sell, and which are produced with a much greater budget or level of technical expertise than many language teachers have. A selection of these can also be found in Part 2.

It is also worth noting that where there have been delays in implementation, these have generally been as a result of the more innovative features, most notably the roll-over translation option. Making the site work across platforms and on both browsers has also proved to be time-consuming, and feedback from colleagues suggests that this is often the case.

In the first half of second semester 2000, students were asked to use the bulletin board to complete a short piece of assessed work. They were able to download homework and see their creative writing exhibited in the gallery. Students were given three weeks in which to post a short (60 words) description of themselves in order to revise first semester work, and to focus on accuracy rather than creativity. Students normally complete homework over one week, but in this case, extra time was allowed to resolve any technical difficulties. In fact, 47 out of 59 students posted their work on time. Technical problems related either to passwords, accent generation, or to three unidentifed problems for students accessing the site from home. In the end, only two students resorted to submitting hard copy. Three students posted their work within the wrong thread but were easily identified. Interestingly, only five students were slightly more ambitious and chose to give their work a title other than the one already existing in the thread for their tutorial group. And only two students engaged in an unrelated exchange in French elsewhere within the bulletin board. Since then, there has been very little use of the bulletin board except to post administration or general information messages which have been viewed only a few times. However, it is worth noting that during the assignment period, students looked at each other's work. Two student assignments were viewed over twenty times, and many were viewed five or six times. Rather than fearing plagiarism (arguably less likely in such a visible medium), a more optimistic assessment of this would be that students were comparing notes, perhaps looking for ideas and looking to see how well others performed. If this is the case, and more detailed observation and analysis in 2001 will examine this issue more thoroughly, then it suggests that the bulletin board may facilitate peer review and learning. This is to be expected given that there has always been a salutary effect from exposing students to successful models. The fact that there was so little other interaction is disappointing, but not entirely unexpected given that the students are not currently required to use the bulletin board for anything else.

Students have also been able to download homework from the site. It was expected that this would be of minimal value in the short term, given the current classroom-based structure of the subject. In fact several students who were unable to attend a class, through illness or other study commitments, have used this facility. There has therefore been a welcome reduction in the number of visits to tutors' offices to pick up hard copy.

The gallery was used for the first time in week six of second semester, after students had worked in small groups in class to compose a poem in the style of *Déjeuner du matin*, by Jacques Prévert. This is an activity that has always worked well in the classroom, both as a creative exercise and to reinforce use of the *passé composé*, with poems presented on transparency. On this occasion students were asked if their work could be posted in the gallery. Their answer was a unanimous and enthusiastic "yes". Hopefully the gallery exhibitions will prove to be motivating, another means of encouraging peer review and a useful public relations tool.

The gallery's second exhibition of fairy tales was posted later in the semester. Again students worked in small groups in class to compose a fairy tale for which the only constraint was that it should begin *Il était une fois* ...(Once upon a time ...). This activity was designed to practice and contrast the use of the *passé composé* and the *imparfait* tenses. The activity produced some impressive creative feats and again, all students were happy to have their work posted on the Web site. As with the bulletin board activity described above, present and future students now have the chance to see successful models of writing in French.

On a practical level, managing the Web site is, obviously, an additional and often time-consuming activity. It is anticipated that this will become easier as familiarity with management processes increases. The satisfaction of seeing features such as the bulletin board and gallery work much as anticipated is, however, sufficient incentive to encourage further development and more effective integration of the site into the teaching program. It has been and continues to be, in the words of Part 3, "definitely worth the effort".

Biodata

Sally Staddon is a lecturer in the Department of French Studies at Monash University. She coordinates Beginners French and Business French and has worked in CALL materials development and evaluation since the mid 1980s. She is co-author of Expodisc Spanish, an interactive videodisc package for Business Spanish, and is a member of the Monash team that has developed Larccalls, an online authoring package for listening and reading comprehension.

References

Blake, R. J. (1999) "Nuevos destinos: A CD-ROM for advanced beginning Spanish", *CALICO*, 17 (1), 9-24.

Bradin, C. (1997) "The dark side of the Web", [Online paper presented at FLEAT III 1997] http://edvista.com/claire/darkweb/index.htm

Chapelle, C. (1998) "Multimedia CALL: Lessons to be learned from research on instructed SLA?" *Language Learning and Technology* [Online Serial], 2 (1), 22-34. http://polyglot.cal.msu.edu/llt/vol2num1/article1/index.HTML

Chun, D. (1994) "Using computer networking to facilitate the acquisition of interactive competence", *System*, 22 (1),17-31.

Kötter, M., Shield, L. & Stevens, A. (1999) "Real-time audio and e-mail fluency: Promoting distance language learners' aural and oral skills via the Internet", *ReCALL*, 11 (2), 55-60.

Lamy, M. (1997) "The Web for French grammar: A tool, a resource or a waste of time?" *ReCALL*, 9 (2), 26-32.

Nielsen, J. (1998a) "That mess on your Website", *Technology Review* [Online serial], Sept/Oct 1998.
http://www.useit.com/alertbox/9605.html

Nielsen, J. (1998b) "Jakob Nielsen's seven deadly sins of Web design", *Technology Review* [Online serial], Sept/Oct 1998.
http://www.useit.com/alertbox/9605.html

Sproull, L. & Kiesler, S. (1991) "Computers, networks and work", *Scientific American*, 265 (3), 84-91. (cited in Kötter, 1999)

Stevens, A. & Hewer, S. (1998) "From policy to practice and back", [Online paper presented at the first LEVERAGE conference]
http://greco.dit.upm.es/~leverage/conf1/hewer.htm

White, P. (1998) "Language teaching and the Web: Tips, examples and caveats", *Proceedings of the 1998 Congress of the Applied Linguistics Association of Australia* [Online publication]
http://www.cltr.uq.edu.au/alaa/proceed/pwhite.HTML

Appendix 1

Beginners French at Monash

Welcome

This Web site is an integral part of Monash University's Beginners French program (French Year 1, level 1 — FRN1110/1120). It is not intended as a stand-alone French course, although we hope some of it may be of interest to users not enrolled at Monash. Enrolled students have a password to participate in the bulletin boards and to submit homework.

Roll the mouse over the text to see a translation of key words or sentences. This function will also be available on other pages on this site or can be switched off if necessary.

If you are already enrolled in Beginners French (FRN1110/1120), use this menu:

If you are just looking or need general information, use this menu: Learning objectives Beginners French — key information Program and timetable Beginners French — learning objectives Hints on how to learn a language Beginners French — program and timetable Assessment structure and criteria Hints on how to learn a language Resources, prescribed and recommended reading Department of French Studies Homework Faculty of Arts Bulletin boards Monash University gallery space Amuse-bouches (just for fun) Language help and feedback

Exercises Autres liens qui valent le détour (other links worth the surf) End of semester tests and revision hints Contact the subject coordinator How to .... (use accents, down-load, etc) About the authors Subject evaluation Amuse-bouches (just for fun) Autres liens qui valent le détour (other links worth the surf) Contact the subject coordinator

About the authors

Please note that at present you do not need plug-ins to use this site. However, some of the linked sites do use audio and video and they will tell you which plug-ins you need. If and when this site uses plug-ins, links will be provided so that you can down-load them.

Click here to see the complete list of contents for the Beginners French site.

Copyright © Monash University 2000. All rights reserved. Caution

Appendix 2 — Extracts from the gallery

Gallery — Sample Student Artwork

This is where we will exhibit examples of FRN1110/1120 students' written work. The first two exhibitions are now open. All students concerned have given their permission for their work to be shown.

Quelques contes de fées

Pendant le 2ème semestre, nous avons étudié le passé composé et l'imparfait et leur emploi pour raconter et pour décrire au passé. Pendant la semaine 10 du 2ème semestre les étudiants ont travaillé en groupes pour écrire des contes de fées. Tous les bons contes de fées commencent avec Il était une fois ....

Voici ce qui est arrivé après ....

Seulement les fautes d'orthographe, les fautes d'inattention et les pronoms d'object direct / indirect (que nous n'avions pas encore étudiés) ont été corrigés.

Un pique-nique dans la forêt

de Emily Clark, Liz Davies, Stephen Lay et Angela O'Shaughnessy

Il était une fois un très beau dauphin (un prince pas un animal — note de la rédaction). Un jour il faisait une promenade dans le bois quand il a fait la connaissance d'une sorcière méchante. Elle a changé le pauvre prince en grenouille! Seulement un baiser pouvait rompre le charme.

Heureusement, une belle princesse a trouvé la grenouille dans la forêt près du lac. Le dauphin était soulagé quand elle l'a levé à ses lèvres.

- Dîner!, a-t-elle dit

Une soirée magique

de Chris Best, Linda Clark, Catherine Henderson et Joanne Page

Il était une fois une jeune fille qui s'appelait Sheila. Un jour elle a fait ses valises et elle est allée à Hollywood. Elle rêvait d'être vedette mais elle n'a pas brillé! Elle est allée à beaucoup de soirées mais à une soirée elle a bu une potion magique qui l'a rendue stupide, blonde et maigre. Elle est devenue vedette tout de suite!

La femme qui mangeait des enfants

de Kieran Fahy, Pat Guajardo, Frank Savino et Peter Sherar

Il était une fois une femme très laide qui portait un chapeau noir et des vêtements qui puaient de la mort. Elle habitait dans la forêt dans une maison faite d'os d'enfants.

Puis un jour un garçon est venu chez elle pour vendre des pommes. La femme l'a invité dans la maison pour essayer de le manger. Le garçon savait que la femme mangeait des enfants et donc lui a apporté une pomme empoisonnée. Parce qu'elle avait très faim, elle l'a mangée sans penser.

Elle est morte soudain et tout le village mangeait la femme comme revanche pour leurs enfants.

Sakura:

An interactive site for learners of Japanese

Takako Tomoda and Brian May
School of Asian Languages and Studies,
Monash University

Name of site:	Sakura
Name of developer:	Takako Tomoda and Brian May (materials and graphics), Peter Stagg, Francis Ramirez and Masaya Fijiu (programming and site design).
Budget:	A$30,000 from the Monash University Strategic Innovations Fund. This provided access to a shared programmer and seven hours of teaching relief for two semesters. The funding received, however, was no gauge of the real costs given the large number of unfunded hours invested in the creation of Sakura.
Mode of delivery:	The site was designed as part of a new introductory level course that combines in-class and out-of-class components, and is available on the Monash server for local and remote access. While the materials are intended for use by students of Japanese language on three Monash campuses, all but the chat facility is currently open to free use.
URL of site:	http://www.arts.monash.edu.au/subjects/japanese/sakura

Context and rationale for development

The learning of a foreign language in an L2 environment is a task that requires considerable commitment on the part of the learner. Face-to-face teaching as part of a tertiary course is an effective method of providing students with graded yet realistic language interaction. However, classroom time is limited and additional exposure to the language is required to extend the students' vocabulary, expose them to the language in an increased range of contexts, and counter their tendency to forget the material practised in class.

Textbooks, workbooks and audiotapes remain the key tools of the language teacher. Such materials provide the framework for in-class instruction and activities. They also provide the student with tangible material for review and practice out of class. However, practising a language alone with a tape and a book requires considerable will power and persistence. For many this remains an activity undertaken only prior to examinations. Key drawbacks with this type of self-study are the lack of an interactive experience and the delay in receiving feedback. Since both of these aspects can be addressed by presenting materials for self-study online, the development of suitable material seemed imperative. In Sakura, this material has taken the form of a series of self-marking exercises.

Another type of out-of-class language learning simply aims, not to revise and practise materials covered in class, but to extend language capacity through real contact with the L2 environment. When this environment is remote, teachers need to construct ways to lead students into L2 interactions. The most common of these is to set written assignments and individual or group projects that require contact with the target language. Even when the L2 is as remote as Japanese is in Australia, opportunities for contact with the target language exist through interaction with overseas students, the print media, radio and video. However, such contact tends to be available on an irregular basis and can require considerable self-motivation on the part of the students. Furthermore, direct L2 contact tends to be largely incomprehensible for beginning level students, so it can be de-motivating. For this reason, realistic language interaction activities often need to be mediated and set up by the teacher. When well conceived, such activities are an effective way of building student enthusiasm and confidence, but they tend to be infrequent due to the set-up time required. What is needed is a source of real L2 exposure, for which guidance can be provided, but which does not require the presence of a teacher.

The World Wide Web presents a huge array of possibilities for interaction with authentic Japanese. From the point of view of language learning, it is an environment that should prove superior to books, magazines, radio and movies since it enables the integration of text, images and sound. Moreover, its novelty ensures that it stimulates the interest of both young adults and mature age learners, and its variety ensures that it provides material of interest to all students regardless of background and inclination. Another advantage is its immediate availability for use by a large number of students at a low cost of access.

Among these apparent advantages are a number of obstacles. Beginning level students with their low level of script comprehension can experience confusion when they encounter Web sites written wholly in Japanese. Orientation sessions and clear instructions are therefore required before authentic sites can be used. The time required for students to sort through the mass of material available on the Web to find what is relevant to their needs can be excessive and, in itself, demotivating. Consequently, the teacher needs to limit the options to those sites where meaningful interaction is possible.

The fluidity of material on the Web presents a major problem, in that sites frequently change both their location and format. This necessitates frequent revision of instructions to students. Despite these drawbacks, the Web is a rich resource that can be judiciously exploited to provide students with activities that challenge them to extend their language experience beyond the confines of textbooks and the classroom. In Sakura, we have made use of authentic Web sites in a series of tasks.

Structure

Sakura comprises interactive language learning materials for beginning level learners of Japanese language, and was designed for self-directed use by internal Monash students. As such, it is only one component of a Japanese language course. Its primary aim is not to replace face-to-face teaching but to provide a means for students to practise and extend the material studied in class. It is designed to cover areas in which students need reinforcement and to stimulate student interest in self-directed study.

The site has four main components: *Renshuu* (exercises), the largest section, is a series of exercises arranged as lessons that parallel the material covered in class. They are intended for use in conjunction with the textbooks *Interactive Japanese* and *From Hiragana to Katakana* that are used both in and out of class (Tomoda & May 1996, 1999). *Tasuku* (tasks) contains a set of activities that require use of the Web to access external sites to accomplish specific tasks. *Renraku* (communication) is a chat/communication facility for students and teachers, and *Rinku* (links) provides a series of links to other Web sites of value to students for learning Japanese.

Stage 1 (lessons 1-20) is designed for use in the first level of Japanese. Development began in late 1998 and, so far, 104 interactive exercises covering 18 lessons have been made available. While students should be able to complete the exercises in any lesson in from one to two hours, a number of exercises are designed to encourage repeated use. The Web tasks require 10-30 minutes to complete.

The main in-class components of the Level 1 Japanese course are contained in *Interactive Japanese* which, with its accompanying audio tapes, is designed to encourage active student-centred learning and has been extensively trialed over a number of years. The out-of-class components comprise paper-based homework exercises based on *Interactive Japanese*, lessons on katakana script based on *From Hiragana to Katakana*, and Web-based exercises and tasks.

Aims of the Web materials

The aims of the Web component of the course can be summarised as follows:

- To introduce students to the use of the Web as a resource for language learning.
- To integrate with and supplement classroom learning.
- To build students' confidence in their capacity to read Japanese script.
- To stimulate students' interest in Japanese language and culture.
- To reinforce and extend the language covered in class and in textbooks.
- To assist students to engage in self-study and revision.
- To introduce students to word processing using Japanese script.
- To provide assistance for students who need to catch up after missing classes or beginning the course part way through.

To introduce students to the Web as a resource for language learning

A key aim of the site is to introduce students to language learning on the Web. Even though the students tend to be young, contrary to expectations, many have had little prior computer experience. Consequently, the site needed to be designed for use by first time Web users, with easy navigation and a straightforward layout. Some students knew nothing at all about using the Internet and most were quite unfamiliar with the use of non-roman scripts. Although Sakura is relatively uncomplicated, it requires the use of Japanese script, and includes an audio component. For this reason, guided lab sessions were found to be essential to ensure that all students could effectively access the site and make optimum use of its features.

The procedures for accessing and navigating through Sakura, connecting headphones and accessing audio, and entering text in text fields, can all be covered in about three hours of lab sessions. Another session is generally required to familiarise students with the use of Japanese script and methods for its input. Sakura includes a series of exercises that teach the rules of inputting Japanese text using a standard keyboard, but many students still require initial guidance in developing these skills. Since most of the exercises have romanised versions, students are able to begin using the site even before they are familiar with any of the three Japanese scripts. This feature makes the site friendly to novice users and avoids discouraging those students who are daunted by the prospect of ever mastering Japanese script.

Since Sakura includes links to other sites, it also encourages Web exploration. Some of the links connect to remote sites that are aimed at learners of Japanese and provide online exercises. Such links encourage students to extend their structured language learning beyond their classroom experience, the course textbooks and the Sakura site. Other links are part of Web tasks. It is through these links that many students first come in contact with the Japanese language on the Internet.

To integrate with and supplement classroom learning

Both in-class and out-of-class components of the course are complementary. Explanations of structural and socio-cultural aspects are provided in the textbook and are also referred to in classes. Classes primarily focus on conversation practice, pair work, listening comprehension and writing practice — all integrated as far as possible. Throughout the course regular quizzes are given on hiragana, katakana, kanji and vocabulary.

The out-of-class components are a combination of material contained in the textbooks, worksheets, and the Web materials on Sakura. Homework exercises are provided for each lesson of *Interactive Japanese* and additional writing exercises for Japanese scripts are provided on paper. *From Hiragana to Katakana* builds on the hiragana writing ability that has been developed through classroom learning to enable students to undertake the learning of katakana in a largely self-directed manner. This learning is complemented by Sakura exercises and consolidated in classes. Web-based exercises are provided for each lesson of *Interactive Japanese*. These can be accessed either from the computer labs at the university or from the students' own computers at home. The exercises include grammatical consolidation, conversation completion, listening comprehension, vocabulary development and consolidation, script recognition, translation and multi-skill exercises. All of these are directly related to, and integrate with, material delivered and practised in class, or as part of the out-of-class script learning components.

To build students' confidence in their capacity to read Japanese script

A major hurdle in learning Japanese is the different scripts used. If students are to learn to read authentic Japanese, they need to acquire both the hiragana and katakana syllabaries and over 500 kanji. To assist them in this task, students require as much exposure to Japanese script as possible. If beginning level students do not develop a confident attitude to learning the scripts, they tend to fall behind. It is easy to dismiss such students as lazy or slow. However, with encouragement many can overcome this psychological barrier and do very well. Therefore, throughout the course we specifically aim to make Japanese script interesting and accessible.

When using the Web as a language learning resource, the issue of script needs to be carefully considered. In their first year of learning Japanese, students do not acquire sufficient reading ability to cope with authentic Japanese. Even though authentic written Japanese is overly difficult for beginning level students, we considered it important not to shield them from exposure to it. This meant that the learning materials needed to be graded, and when authentic materials were used, they needed to be carefully selected or made available in bilingual formats.

In Lessons 1 to 17 of the Sakura exercises section, most exercises are presented in parallel romanised and Japanese versions. Other exercises focus specifically on the recognition of Japanese scripts, while others still introduce vocabulary items in kanji together with their hiragana versions. Many exercises also require students to input text in Japanese. This approach familiarises them with the Japanese scripts and allows a gradual adaptation to reading wholly in Japanese. In the task section, the exercises that use remote sites need to provide students with exposure to authentic written Japanese in a manner that allows them to successfully complete the task even though most of the language on the site is unintelligible. Therefore students begin with tasks that are simply accomplished, such as locating names and specified items of information, and gradually progress to freer, more complex tasks. We considered it important to avoid tasks that could frustrate students since this risked reinforcing preconceptions about the difficulty of reading Japanese.

To stimulate student interest in Japanese language and culture

Beginning level students can become easily discouraged when confronted with the realities of learning a new language. The course is specifically designed so that the practical value of the language learned is apparent to them. In addition, it aims to stimulate in students an intrinsic interest in the language and in learning about Japanese culture.

A number of cultural topics are raised in the textbook but their coverage is necessarily brief. Web tasks that direct students to relevant Web sites are used to expand upon these topics and make them more realistic. Such Web exploration exercises have proven to be a means of stimulating interest and facilitating learning. For example, one of the lessons in the textbook talks about national holidays in general, and about Children's Day in particular. Students are directed to the *Koi nobori* Web site that provides further information in bilingual versions. Although the students will have difficulty reading the Japanese version, there are some vocabulary items that they can recognise and some new words that they can learn. Students can be set tasks that require finding specific information and the activity can be developed into a class discussion. Koi nobori is well designed and attractive, so this short activity works well and makes classes more lively.

Since the sites accessed relate to travel and cultural aspects of Japan, students require little coaxing to undertake the activities, and the successful completion of the tasks leads many of them to further explore the Web and develop their own interests.

To reinforce and extend material covered in class and in the textbooks

In-class time is especially valuable because it is limited and requires the presence of skilled language teaching staff. It is therefore best used for conducting pair-work speaking exercises, listening activities, communication tasks, explaining difficult points, and extending the course to make it more relevant to the specific needs of the student group.

The Web exercises in the *Renshu* section employ the same vocabulary and structural aspects as the textbook, with the dialogues providing examples of how to extend the application of the in-class material. Students can practise these activities in their own time, at their own pace, and since exercises provide immediate feedback, they can gauge their progress in a non-judgemental setting.

To assist students to do self-study and revision

Revision and self-directed study are disciplines that all language learners need to develop, but many students lack the skills to make their self-study active and effective. One aim of the course is to develop such skills. The Web exercises provide a means of structured self-study using exercises that are self-marking so they provide one-on-one interaction with immediate feedback. Some exercises are timed, scored and randomised to encourage frequent repetition. Since the Web exercises focus upon the key language points in each lesson, they function as a form of study guide directing students to these points whilst uncovering their weaknesses in a non-threatening environment. The exercises are referenced to lessons in the textbook so students can easily find the sections they need to revise. Students can, and do use the textbooks as a reference to help them whenever they encounter difficulties with the exercises. These features, combined with the use of graphics and audio in some exercises, make self-study more interesting.

Some of the Web tasks relate to topics covered in the course and provide revision as well as extension. Other tasks are more open to allow students to explore their own interests and to stimulate unstructured self-study. Links to other Web sites that provide Japanese language learning materials provide an additional stimulus.

To introduce students to word processing using Japanese script

There are two basic methods for inputting Japanese into a computer, one involving a keyboard marked with hiragana script, and the other one with a standard roman script. Beginning level students learn a romanised form of Japanese (*roomaji*) to provide them with a means of writing Japanese while they learn the Japanese scripts. However, there are some differences between the romanised Japanese used in textbooks and the method of entering Japanese script using a standard romanised keyboard. These differences are not great but explicit instruction is essential. To take one example, long vowels are problematic since a word that students are used to spelling as *kyooshi* has to be entered as *kyoushi*. Also, a particle that students have been used to writing as *wa* becomes *ha*. In addition, there are a range of shortened alternative ways of inputting individual hiragana or katakana (for example, *tsu* = *tu*, *shi* = *si*, and *chi* = *ti*), so the Japanese version of "Good day" that students learned in lesson 1 as *konnichi wa* can be entered as *konnnitiha*.

To introduce students to the rudiments of word processing in Japanese script, we developed a series of exercises that cover all the features of inputting text in hiragana. These have a dual role in that they also give students practice in entering Japanese in text fields, a skill they require to complete other Sakura exercises. Once students have mastered the basics of text input, they can learn other operations such as changing from hiragana to katakana and from hiragana to kanji. These aspects are also covered in Sakura as well as in computer lab sessions using an ordinary Japanese word processing program.

To provide assistance for students who need to catch up after missing classes or beginning the course part way through

While we do not encourage students to miss classes, some always miss a part of the course for a variety of reasons. There are also students who enter the course after receiving advanced standing for having completed study elsewhere, but who lack certain skills. Since language learning is an accumulative process, once students fall behind, they tend to get more and more lost unless a specific effort is made to assist them. In our teaching we try to speedily identify such students and address their difficulties before they become too severe. However, as pressures on staff continue to increase, so our ability to offer such pastoral care diminishes.

As one way of dealing with these problems we have designed course materials to be easy to follow. The textbooks contain detailed explanations and progress at a manageable rate. Since the Web materials are clearly linked to the textbook, we can direct students to them and be confident not only that they will find the information they need, but that they will be able to do some practice that forces them to use the information. In a recent case, one young man entered the course in the third term but was having difficulty with his reading. After he went through the Sakura exercises, especially the blocked, timed quick response exercises, his reading speed and accuracy improved so markedly that he moved from being a likely fail to one of the top-level students.

Types of online exercises presented in Sakura

We have developed a number of types of exercises in the *Renshu* section. Some involve text only, some incorporate sound, some have graphics, and others integrate a number of features. In general, the following main types can be identified:

- Multiple-choice requiring the correct option to be selected
- Multiple-choice using pull-down menus
- Cloze-type exercises requiring typing into text fields
- Blocked, timed, quick response exercises
- Vocabulary sets
- Experimental exercises that do not easily fit into the above categories
- Web tasks.

Each type of exercise has its advantages and disadvantages, as well as constraints. These need to be balanced from the point of view both of language learning effectiveness and of practical implementation on the Web.

Multiple-choice requiring the correct option to be selected

This type is modeled on the multiple-choice quiz. The format is the same as for the paper version with the student clicking on an option. Feedback is usually provided immediately in the form of a green window in which is written *tadashii* (correct) or a red window with *tadashikunai* (incorrect).

Such exercises are easy to develop and implement on the Web. The advantages are the same as for paper-based multiple-choice, in that this format can be adapted to many types of situations and the answer can be controlled. On the Web it has the added advantage of being familiar to first-time users and so requires little explanation. This kind of exercise can be produced in parallel romanised and Japanese text versions and it is also possible to use the Japanese script as a graphic rather than as text. In fact, this kind of multiple-choice exercise is the best option when the use of Japanese text presents a technical problem.

Since immediate feedback can be provided on the Web, it can be argued that this kind of exercise is better delivered online than on paper. However, when implemented on the Web, it has few advantages over a booklet version that includes the answers in the back. As a Web exercise, its main disadvantages are that it is unoriginal and tends to be boring. Nevertheless, we have found it to be the best option for basic translation practice. Whole sentences do not lend themselves to the use of pull-down menus, and translation exercises require the careful reading of all the options.

Multiple-choice using pull-down menus

Although pull-down menus are just a version of paper-based multiple-choice, the online version does have some advantages. It is of particular use when constructing exercises of the fill-in-the blank type. The pull-down menu forms the blank from which the user selects one of a limited range of options. When using Japanese script a Japanese character set is required but, since no Japanese text input is involved, this type of exercise can be done easily by beginners. Once students have made their selection they click on a Submit button to receive feedback (correct/incorrect). This can be provided for each item so beginners can progress through the exercises easily. Feedback can also be provided at the end of a longer passage and be combined with blanking out of the incorrect selections.

We have used pull-down menus for many exercises. Since the range of possible options is limited to four or five, this exercise lends itself to the practice of grammatical points and we have often used it for this purpose. It is also effective in longer model conversations where more complex comprehension is the focus. Although we have usually used simple feedback (correct/incorrect), it is possible to construct a more complex set of feedback options with this and other types of multiple-choice exercises. For example, in 4.2 feedback is provided in a text field and includes hints relating to incorrect options (see Figure 1).

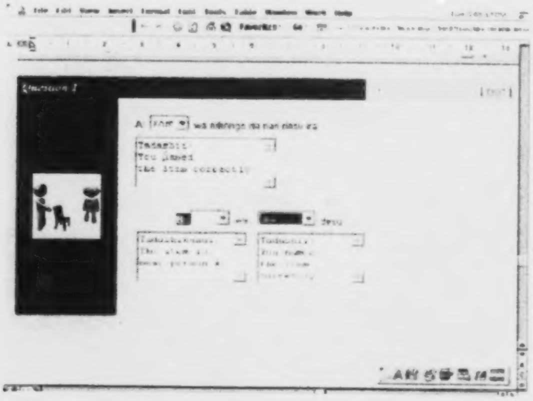


Figure 1: Exercise 4.2

The disadvantage of these kinds of exercises is that they tend to be mechanical since the correct responses can be obtained by trial and error. Consequently, students have little motivation to repeat an exercise once they have completed it. Further, the presence of pull-down menus in the middle of sentences looks unnatural, especially in

BEST COPY AVAILABL

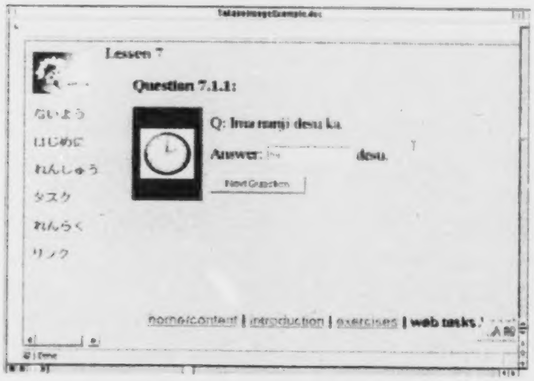
longer passages that include a number of them. There are also some difficulties in programming more than one pull-down menu into a sentence although these can be overcome. Nevertheless, this kind of exercise is easily adapted to many formats and situations. It is generally superior to the first type of multiple-choice and showcases some of the advantages of the online format over the paper-based.

Cloze-type exercises requiring typing in text fields

Text fields can be inserted into sentences to create cloze exercises. Students type in romanised or Japanese script and then press a Submit button to obtain feedback. This can take many forms but we have generally used a feedback box of the correct/incorrect type together with blanking out text wherever it is incorrect while retaining the correct portions. The student then re-enters text in the blanked-out fields and resubmits the answers.

Compared to pull-down menu exercises, text-field cloze exercises cannot easily be solved by trial and error and so require more thought and a clear understanding of Japanese. They can be used for both long and short exercises, but longer exercises involving dialogues that include a number of text-fields, can prove difficult for students because the options are open and not constrained as in pull-down menus. Consequently more care needs to be taken in designing such exercises to ensure that there is no ambiguity.

When Japanese script is being used for input, there are a number of problems in addition to the need for students to be familiar with ways of entering Japanese script. The exercises have to be programmed to accept all valid textual variants — for example, a text-field requiring the Japanese for "two" needs to accept *futatsu*, *hutatsu*, *futatu* and *hutatu*. When longer strings are used, spaces can present a problem, as can the use of capitals. Despite the greater complexity involved in developing text input cloze exercises, we have created a variety of them and find the format effective.


Lesson 7

Question 7.1.1:

Q: Ima nanji desu ka.

Answer: desu.

Figure 2: Exercise 7.1

We have also used text fields in exercises that include sound and images. For example, in 7.1 (see Figure 2) students see a graphic of a clock and hear a person ask them what the time is. They write the time into a text field and submit their answer. They then progress to the next question until they have finished a set and receive an accumulated score.

BEST COPY AVAILABLE

Blocked timed quick response exercises

For items that require memorisation we have developed exercises that require rapid responses to sets of items. This kind of exercise can be randomised or presented in multiple versions, so students do not repeat the same set. In the format we have adopted, sets of ten items drawn from a pool of over one hundred are presented as one exercise. These exercise blocks are presented sequentially and the students have to click on one of three options. Feedback is provided at the end of the set rather than for each item. Students are given a score out of ten, the time it took them to complete the exercise, and the numbers of the items they got wrong so they can go back and check where they made mistakes. When students repeat the exercise a different set of ten questions appears. This format gives students a realistic assessment of their ability, encourages repetition, and provides them with a way of gauging their level of improvement.

We have used these exercises for introducing students to hiragana, katakana and kanji. Exercise 1.1 (not shown) simply requires students to decide which of the three scripts a particular character belongs to. Even though students are beginners who have not yet learned to read any of the scripts, this exercise can familiarise them with the general differences between the scripts. Once students have learned to discern these differences, the scripts themselves become less foreign, and this helps to overcome some of the psychological hurdles that students have when faced with the need to learn Japanese scripts. Later exercises are more conventional, in that they require students to identify individual hiragana and katakana characters.

Even though this kind of exercise is really a version of flashcards, the computer format with time and accuracy feedback produces the feeling of a computer game. Therefore it is more enjoyable than simply testing oneself using flashcards. We found that students liked using these exercises, so we adapted the format to vocabulary building by presenting all the key vocabulary items from two or three lessons of the textbook in randomised blocks of ten. Of these, students choose one of three possible English equivalents.

We have constructed a number of variations on this format. In 7.2 (not shown) students are presented with a set of times written in numerals and have to type the Japanese into a text field. They receive a score at the end of the set and are then presented with a new set. In 7.3 (not shown) the same approach is taken with randomised sound files. Students hear blocks of sound files of times and have to choose whether they correspond to a written time by selecting buttons for correct or incorrect. In this version both time and accuracy feedback can be provided.

Although only applicable to single items, this exercise is very effective for learning them. The items can be presented as graphics, text or sound, and since it is really a version of multiple-choice, such an exercise is suitable for beginners. Once sound is incorporated, the exercises progress beyond being a variety of electronic flashcards and make effective use of the technology. The main disadvantages lie in the limitations on the types of items that can be effectively practised. In all cases students are simply recognising written or spoken language, with responses merely confirming their understanding. When text fields are used, a limited form of production is introduced, but this is at the expense of feedback on the time taken. Another difficulty with exercises of this type is the time required to construct them. Further, the early experimental versions were a nightmare to check. However, as we have developed better methods, this kind of exercise has become a standard inclusion.

Vocabulary sets

This type of exercise aims to revise the main new vocabulary items for each lesson. It involves reading the vocabulary item that is presented in Japanese script, and then typing into two text fields the romanised version and the English equivalent. Students then click on the Submit button to receive feedback.

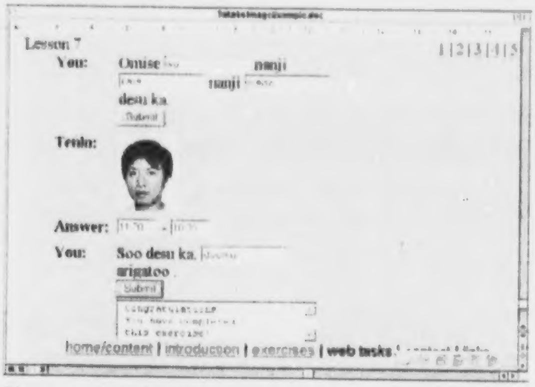
The advantage of these exercises is that they provide a simple way for students to revise specific new vocabulary items in a form that calls for text input rather than the selection of an option, as in the blocked randomised vocabulary exercises, and require knowledge of both pronunciation and meaning. Since the Japanese is provided in both kanji (where appropriate) and kana, students are exposed to kanji well before they are required to memorise it. Once a kanji has been covered in the course, the corresponding kana can be dropped, so the exercises can assist in kanji memorisation. In addition, they are easy to design and implement as they all follow the same format.

On the downside, these exercises involve no meaningful interaction. They are simply a list of words without any logical grouping. This means that they can become tedious, and need to be kept short. Once students have learned hiragana, the inclusion of a text field for romanised Japanese might seem counterproductive, but as students continue to input Japanese using a standard keyboard, this feature remains useful. The main difficulty in constructing this kind of exercise lies in the need to accept numerous options, in both the romanised text field and in the English.

More complex exercises

We are developing a number of exercises that require the use of combined language skills. Exercise 17.1 (not shown) presents an interactive calendar and a series of sound files that provide the month and day of the month. Students listen to the recording and select the correct month from a pull-down menu, and then click on the day. This exercise makes a rather boring activity, such as learning the days of the month, considerably more palatable.

Another type of exercise is a mock conversation that involves students completing part of a dialogue by entering text, and the computer responding with a spoken answer to which students have to respond. Exercises 7.4 and 7.5 are actually versions of text input cloze exercises, where the role of the partner is replaced with a photo of the person and the text being replaced by sound (see Figure 3). However an additional element is introduced. Students have to answer a question, to check that they have understood what has been said, before they complete the final line of the cloze. Progression through the exercises has been made conditional on successful completion.


Lesson 7

You: Omise nanji nanji desu ka.

Tenin:

Answer:

You: Soo desu ka. arigatoo.

Figure 3: Exercise 7.5

Exercise 17.2 (not shown) is a combination exercise that is a complex version of True or False. It involves reading a Japanese schedule book and listening to statements about the schedule. Then students decide whether the statement is true or false by clicking on the corresponding button.

Web task activities

This type of exercise involves having students access remote sites and are included in the *Tasuku* section rather than in the *Renshuu* section with the other exercises.

The simplest kind of activity involves accessing a given URL, identifying the types of Japanese scripts used, and locating specific words. Other activities suitable for beginners involve the use of bilingual sites to find out specific information. A more complex type of controlled exercise requires students to find out the answer's to a series of questions about access to Narita Airport, outside Tokyo. The instructions and questions are all provided on a separate page that students can print out if they need to. Students then click on the URLs provided and use the instructions and hints to find out the information required.

An example of a freer activity is "A letter from a virtual trip to Japan". Students are required to use the Internet, locate one or two towns or cities in Japan that they are interested in visiting, and find out a number of things they can do or see and places they can visit. Then, imagining that they are actually in Japan and visiting the places chosen, students have to write a short letter to the teacher.

Exercises of this type are popular, but they require considerable involvement by the teacher in the early stages. Once students are more confident, they can manage the

BEST COPY AVAILABLE

exercises by themselves. As the exercises are not self-marking, they need to be part of an assignment so that feedback can be provided. There is no theoretical reason why this kind of exercise cannot be designed to provide automatic feedback, like other exercises, but remote Web sites often change their format or disappear altogether, so the effort of setting up a self-marking system is not warranted.

Providing online feedback

As the exercises are self-marking, the issue of the nature of feedback provided arose early in the developmental process. We needed to achieve a balance between providing a learning challenge for students and spoon-feeding them. After considering a number of approaches, we took the view that students needed to work for answers. We reasoned that, if students were automatically provided with the correct answer, this would give them an inaccurate appraisal of their level of competence. It would also discourage them from referring to the relevant part of the textbook or their class notes, and defeat our aim of encouraging review. In all cases, therefore, we have avoided providing the correct answers directly and have required students to rely upon their own resources. In a few cases, we have made progression through an exercise dependent upon successful completion of each section, but we have not adopted this as a general strategy, as we fear it may prove overly discouraging. As expected, some students have requested that the answers be provided, but we have resisted such suggestions. Students need to learn how to solve problems if they are to progress with language learning. Between the Sakura exercises and the textbooks, all the necessary resources are provided, and once students realise this is all they need to work out every question, they begin to work more independently. Just as the language teacher in the classroom should avoid becoming a walking dictionary, exercises for self-study should require real self-directed learning on the student's part.

The following are the main types of feedback used:

Correct/incorrect window
This is the simplest form of feedback, taking the form of a green (correct) or red (incorrect) window. It is used for multiple-choice exercises.

Correct/incorrect window plus blanking out incorrect answers
This is the most commonly used form, used for both pull-down menu and text input exercises. The advantage is that it clearly locates the source of the error so students can self-correct and resubmit a corrected version.

Total number correct plus identification of incorrect answers

This approach is used in blocked randomised exercises and in some multiple-choice exercises. In many cases the time taken is also provided. By not providing a correct/incorrect window, speed is encouraged. At the end of the set, the students find out which questions they got wrong, and they can scroll back to see their answers. The correct answers are not provided but, as these exercises involve no more than three options, it is a simple process for them to check the answer using their textbook, which students eventually learn to do.

Correct/incorrect window plus hints as to the nature of errors

In some exercises feedback incorporates hints to guide students to the correct answers. We had intended to do this for many exercises, but the development of a feedback system of this type is very time-consuming and somewhat redundant as students have textbooks to which they can refer.

Surprised or questioning audio feedback

Audio feedback is incorporated into some exercises which involve listening and responding using text input. As these exercises are mock conversations, the computer needs to respond to incomprehensible input in a manner similar to that of a person. Therefore we made a range of sound files that say the Japanese equivalents of things like "Sorry, could you say that again?" or "Eh? What was that?"

Difficulties encountered

Designing and implementing self-marking exercises on the Web is a process that consumes vast amounts of time. Having the exercise designed on paper with the text in electronic format is the first step, but this is followed by many hours of consultation with the programmers, recording and arranging audio files, selecting and scanning graphics, checking and correcting the various versions, and then revising the exercises in response to inadequacies in design or later technical developments. While the inclusion of audio is a desirable feature, the time involved means that it is something of a luxury.

Once Japanese script is used, the difficulties are multiplied. Firstly, parallel versions are needed, otherwise, when students first access the material from home, they will usually encounter a mass of unintelligible code, because it takes most of them some time to work out how to use Japanese on their browser. The presence of the romanised versions means that even the least Web-wise students will find something they can do, and not give up in frustration. Secondly, accessing software that will display Japanese script can be a problem. Despite their name, standard

WYSIWYG editors do not display Japanese well, and this makes the programmers' task difficult. Thirdly, convincing the managers of networks to support non-roman scripts is not always a simple task. What all this means is, setting up computer labs to enable students to use Sakura effectively while at university, has proved to be a very time-consuming and frustrating task.

A major difficulty with using the Web lies in the limitations on the type of exercises that can be implemented effectively. Having spent many years developing language materials for use in the classroom, we are aware of what kind of activity motivates students and produces an active learning environment. However, the Web is an entirely different environment, with very different constraints. For example, we have developed a number of card games for learning Japanese scripts, and had expected these to be adaptable to the Web, but limitations on the use of drag-and-drop precluded their use. Access problems, too, mean that the use of long pieces of audio or complex graphics needs to be avoided. Consequently, some good ideas must remain on the drawing board until Web interactivity and speed improves.

Initially the site was developed to be compatible with both Netscape and Internet Explorer, but as new versions of these browsers came out, it became increasingly apparent that Netscape was not good at supporting Japanese script. Consequently, later versions of the site were designed to be compatible with Internet Explorer only. This decision has simplified development somewhat, but it also means that compatibility with networks remains a difficulty. In addition, students need to have recent versions of Internet Explorer installed on their computers to use Sakura effectively from home. Besides browser problems, screen size is an issue because viewing the site on a small screen can cause the Japanese script to wrap to the next line halfway through words. For sophisticated users, this does not present a problem, but it can be very confusing for beginners. We have attempted to prevent the problem by keeping lines of text short and predetermining where wraps should occur. Nevertheless, it remains an ongoing difficulty.

When conducting lab sessions that require the use of external sites, the fragility and unreliability of the Net needs to be considered. Prior to such sessions, a number of possible activities need to be prepared. In one session, the task that was planned was using a free Net-based e-mail application to write e-mails in Japanese. Students were given the URL of Magnet, a popular Japanese e-mail facility, but when they tried to access it, they found it was under repair. The next option was Hotmail, since it can handle Japanese script, but it was down as well. The lab session was only saved by switching to a different activity that had been prepared as a backup. Since problems of this nature are not infrequent, doubling up on preparation is mandatory.

Student feedback

Over the last two years we have conducted a number of evaluations to assist us in developing materials relevant to our students. In 1999, our students were involved in the research study reported in Part 3. As yet, the amount of our own data is not large enough to permit statistical analysis, but some preliminary observations can be made.

Within the student group there were differences in student levels — some had done some Japanese at school, some had visited Japan, and others were absolute beginners. In addition, there were mixed motivations for learning Japanese — some were doing the course out of general interest, while others intended to continue to higher levels. There was also a significant proportion of students with a Chinese background for whom kanji represented few difficulties. Consequently, we needed to include material that could be used successfully by absolute beginners in order to build their confidence and enthusiasm. But we also needed materials that would challenge and extend those learners who already had some knowledge of Japanese or of kanji.

To gauge students' response to the Web material, we observed lab sessions, interviewed students and distributed questionnaires. Over 90% of students surveyed reported that they found the Web useful for language learning, and over 96% said they enjoyed using the Web material. In lab sessions students were keen to do the exercises and some were reluctant to leave when the sessions had finished. However, the majority of students did not access the Web materials from home. Even though most students were young, many did not have the level of computer skills that we had expected, and many did not own computers. Further, downloading the appropriate browser, and setting it up to read Japanese text and deal with sound, proved to be beyond many students' skill levels. Consequently, students tended to use Sakura in the university labs. Nevertheless, a small group (10-15%) used the materials from home regularly.

We had expected that students would prefer certain kinds of exercises, but we found that students generally rated all the types of exercises as "interesting" with a slight preference for randomised timed exercises (about 18% "very interesting") and for exercises with sound. However, they repeated individual exercises "sometimes" or "seldom" independently of the type of exercise involved. When faced with difficulties, students said they looked up their textbooks or their class notes rather than simply try all options or skip the exercise, so it seems that these exercises do stimulate revision. Over half the students indicated that they found the exercises useful for revision. Nevertheless, students preferred the textbooks to the Web exercises for purposes of revision.

The following selection of student comments is representative of their opinions of the main advantages of the Web:

> "Can use it in your own time and at your own pace."
>
> "Can reinforce what is learned in class."
>
> "No pressure, doesn't matter if you get a question wrong."
>
> "Can do the same exercise until you fully understand it."
>
> "It allows you to see how much you can remember and what you need to study further."
>
> "A good way to test myself."

On the negative side, a number of students reported difficulties accessing Sakura effectively from home. Generally, these were problems with browser versions and settings. Although they could be resolved easily, they represented a significant source of frustration for novice computer users. Some students complained that they wanted the right answers to appear on command, while others said they did not like to use the exercises alone because there was no teacher to ask when they encountered difficulties. It was clear, from talking to students and from comments on questionnaires, that students preferred classroom teaching with a textbook as a form of language learning, and that they preferred the textbooks to the Web materials for revision. Nevertheless, a number commented that they liked the overall mix of classroom, textbooks, worksheets and Web materials.

With regard to learning Japanese scripts, over the last year or more there have been no complaints from students about the difficulty of Japanese script. On the contrary, some say how interesting it is. To what extent this is due to the use of Sakura is impossible to say. However, during lab sessions, students displayed obvious satisfaction when they scored well on script recognition exercises, and appeared enthusiastic about learning to input Japanese text and, eventually, learning to write e-mails in Japanese.

Has it been worth it?

There are two aspects to this question — the pedagogical and the personal. We have found that the Web does offer a means of delivering language learning materials, and in some areas it has advantages over other media. However, it is difficult to use the Web as the primary means of delivery due to the lack of spoken interaction, the greater time and effort it takes to produce Web materials, difficulties in ensuring student access, and the technical difficulties involved in maintaining a working site. Despite enthusiasm for Web materials, students tend to prefer more traditional forms of delivery, and some remain shy of the technology unless assisted with its use. Nevertheless, having taught the same levels of

Japanese many times using conventional methods, we are confident that the provision of online material enhances delivery, and is a significant factor in maintaining good retention rates.

From the personal angle, the opportunity cost of creating a site of the size and complexity of Sakura has been enormous. The work has been unrelenting and the frustrations many. As a form of employment, undertaking a project of this nature with the funding provided is not recommended. Over and above the funded teaching relief, Takako Tomoda has spent many additional weekends on Sakura and, in addition, Brian May has spent at least one day a week (unfunded) on the project. Most of the materials' development and testing has been carried out in unfunded time using the developers' own computer equipment and other resources. Our experience is that the amount of time required for developing Web-based exercises is very much greater than for paper-based exercises. In particular, the need to use a combination of roman and Japanese scripts is extremely time-consuming. We have attempted to calculate our implied hourly rate of pay, but the results are so low that we can only regard the development of these materials as a form of personal growth!

What is more difficult to tolerate is the way the development of language teaching materials of this kind is regarded. Many of the exercises are experimental. When they were developed there was nothing to model them upon, so prototypes had to be developed, revised and tested. For every exercise that made it online, there is one discarded as unworkable, too ambitious or just too time-consuming to create. As developers, we view this work as a form of research and we are sure that the programmers who created innovative programs to implement the interactions were also engaging in research. However, the development of language learning materials is a low status activity within the university system, and the production of a Web site rates even lower than the production of a language textbook. So, from the point of view of career advancement, the time would have been much better spent on conventional research activities.

On a positive note, the opportunity to explore the use of the Web in the delivery of language learning material has not been a cause for regret. Since we have an ongoing interest in the art and science of language teaching, we feel an imperative to explore and make use of this new resource. When students undertake to learn a foreign language, they do so with enthusiasm, but this can easily be dampened by courses that are boring and of doubtful relevance to their needs. Educators need to keep up with the times and provide courses that stimulate students to continue with language learning. Since the Web is a rapidly growing communication medium, educators in the language field really have no choice but to embrace it.

Acknowledgements

We would like to thank the following people. Uschi Felix, for her support in this project and for her management skills. Shoko Hagino, Naoto Yokomizo, Tetta Watanabe and Mariko Muraki, for assistance with recording. David Askew, for his input in the early stages of the project and for providing much appreciated assistance in locating suitable Web sites. Gary Peters and Takayuki Nakatani for their encouragement and assistance with technical problems. We would also like to thank those staff members sympathetic to CALL development for providing opportunities for commiseration.

Note

Sakura was shortlisted for the 2000 ASCILITE "Best application of computers to learning and teaching" award

Biodata

Takako Tomoda is a lecturer in the School of Asian Languages and Studies at Monash University. She has taught Japanese for over 16 years in a wide variety of contexts and has written a number of textbooks and articles in the field of Japanese language. Her interests include language change in Japanese, teaching Japanese as a foreign language, and CALL.

Brian May is a lecturer at Victoria University of Technology in Australia. He has taught Japanese at a number of institutions and co-authored two Japanese language textbooks. His interests include the psycholinguistics of reading in character-based scripts, teaching Japanese as a foreign language, and the flexible delivery of language programs.

References

Tomoda T. and May, B. (1996) *Interactive Japanese, Book 1*, Tokyo: Kodansha International.

Tomoda T. and May, B. (1999) *From Hiragana to Katakana*, Melbourne: A.J.L.S.

Web site

Koi nobori http://www.bekkoame.ne.jp/i/hatos/nippon/season/koi.htm

Online German for secondary school students

Stefo Stojanovski, Fred Hollingsworth,
Jennifer Saynor-Locke
Victorian School of Languages, Melbourne

Name of course:	German 101/102
Name of developers:	Stefo Stojanovski, Fred Hollingsworth, Jennifer Saynor-Locke
Budget:	A$150,000 (subsequent courses should be less)
Mode of delivery:	Distance education
URL of site:	www.languages.vic.edu.au (log on using "guest" as username and password)

Description of course

German 101/102 is a year long distance education course for high school beginner students. The online version is based on the existing distance education paper course. Since the online work of the Victorian School of Languages (VSL) has focused so far on developing content, the material has only been trialed in sections with a small number of students. It is, however, planned to trial the whole course in 2001.

Context and rationale

In 1998 the Victorian Department of Education reviewed distance education provision to schools in the state. Included were the established distance education schools offering "print plus" course materials, clusters of schools with shared telematics and videoconferencing arrangements, other forms of school curriculum sharing, and emerging online developments.

The wide-ranging findings resulted in some significant recommendations, among them that distance education adopt online delivery, and that the "market" be opened to other providers. The latter recommendation resulted in an initial push for government sector distance education providers to form partnerships with the private sector and other educational bodies. Though still on the agenda, this push has since slowed down as authorities have realised how problematic it can be (at least one major attempt to set up a "strategic partnership" has failed).

At the same time, and not directly related to the review, there has been a growing awareness, given the costs, of the need to develop online materials collaboratively on a national basis.

In Australia, each state has its own distance education provider/s. For all of those to develop their own online courses is an obvious inefficiency, so what may emerge, bureaucratic rivalries permitting, is the delegation of responsibility for the development of some languages to designated states.

The VSL is a specialist provider within the government education system, offering 40 languages to students — background learners studying their family language as well as second language learners — who are not able to access the language of their choice at their regular school. It teaches 12,000 primary and secondary students face to face in 32 centres (schools which open outside regular hours), and, for seven languages only (French, German, Greek, Indonesian, Italian, Japanese and Latin) 1,500 secondary students through distance education. A team of developers, teachers and technical staff, co-located in a central base where they can interact and exchange ideas, will eventually develop materials for these seven distance languages at six levels to produce 42 year-long online courses.

Audience and setting

Students enrolling in VSL distance education courses come from the following groups:

- School-based students accessing a language not available to them at their regular school (the majority)
- Home-based students not able, or wishing, to attend regular schools
- Travellers – children of itinerants, overseas postings, etc.
- Students in detention centres, hospitals and other indisposed groups.

Online enrolments will likewise come from all of these categories. School-based students are expected to have some supervision from teaching staff, though, in practice, this does not always occur. Home-based students need supervision by an adult.

Mode of delivery

In distance education, school-age students have a wide variety of needs and skills, and are faced with many obstacles on the road to educational success, not the least of which is access to the appropriate technology. To cater for all possible situations, we will make courses available in three modes: the Web only, a hybrid of the Web and CD-ROM, and printed course books with audio cassettes or CDs.

In the initial online trials, students received the material on CD-ROM. The reason for this approach was a recognition that course material containing coloured graphics, video and sound would require more bandwidth than was yet generally available to schools. The CD-ROM contains a custom installation program which runs an automated installation process requiring limited user input. Once the installation is complete, a menu system allows students the choice of continuing to access the course off-line (that is, work from the CD-ROM), or via the Web. If students work from the CD-ROM, they need to go online only for activities that require the Web. This minimises connectivity problems and Internet costs.

The Web site provides a virtual campus environment based on the Blackboard course delivery software that houses and organises the course content, and provides all of the administration tools, like tracking and record-keeping and the communications features (a complete suite of synchronous and asynchronous tools). Although Web CT is the more common platform in the schools sector, we chose Blackboard for its greater flexibility in accommodating our needs. In particular, the modular design allows for substitution of third party or institution developed functionality, without custom programming. Support for open industry standards facilitates integration with existing administrative and other systems. The architecture is inherently stable and allows rapid scalability to accommodate large numbers of users. In our assessment, it had superior flexibility and was easier for both teachers and students to use. Being fully customisable, the course environment will support a wider array of teaching and learning styles.

Each element of course material, irrespective of the development software used, is treated as an "object" and stored in a relational database. This means that we are not limited to working in one software package, but can develop activities in a range of packages suited to particular items (or as can be afforded). For example, an activity developed as an Adobe Portable Document Format (PDF) file could be followed by a Director file, which could in turn be followed by a Power Point presentation. The interface to the database provides intuitive functionality where teachers do not require technical knowledge to create courses or add content.

Rationale for development

Traditional distance learning has a number of inherent problems for students and teachers, many of which can be creatively addressed by the online mode.

There is little doubt that, for distance education, moving from correspondence (print plus) to online delivery, will bring a number of administrative efficiencies as well as improved learning outcomes. In traditional correspondence mode, students receive course-books and accompanying tapes and kits that may include games, visuals etc. The students communicate with the teacher via paper mail, and scheduled fortnightly telephone calls (e-mail has been added to the repertoire in recent years and represents a transitional phase towards online teaching). For pre-adult learners, this is a cumbersome and organisationally difficult way of working. There is little opportunity for interaction, collaboration, authentic language experience and immediate feedback. Online delivery can eliminate, or at least reduce, many of these difficulties.

Problems associated with the traditional distance education model

- Typically, students work alone with little sense of belonging to a group or class and without easy access to teachers or other students for help, support or language practice.
- Despite structure and assistance, it is difficult to get students to collaborate when they have to "cold call" other, unknown, students on the telephone.
- Students have no way of knowing how they are progressing in relation to others in the same course, or whether the difficulties they may be experiencing are shared.

- Students are reliant on cassettes and fortnightly telephone contact with their teacher for listening and speaking activities. But students find cassette players unwieldy and tedious, and there is no immediate feedback for pronunciation difficulties. Having to re-wind the tape discourages students from multiple practices.
- There are relatively few occasions during the year for students to hear and practise the target language in simulated and/or authentic settings.
- Students are reliant on printed material and limited use of video and audio material for cultural experiences.
- There is a lack of immediacy with several days involved in sending and receiving work through Australia Post, while phone contact is not always easy for students attending school.
- It is difficult for teachers to track student progress, leading to inefficiency in record-keeping and report-writing.
- Teachers do not know how much time students actually spend on the non-submission and preparatory activities, or whether they complete them at all.
- Teachers do not know how much time and effort students spend on the work that is submitted.

Online delivery is being used, not only to overcome such difficulties, but also as a driving force for reform in distance education. The following table (Nair 2000) summarises the ideal reform agenda:

Traditional Learning Environment	**New Learning Environment**
Teacher centred instruction	Student centred learning
Single sense stimulation	Multisensory stimulation
Single path progression	Multipath progression
Single media	Multimedia
Isolated work	Collaborative work
Information delivery	Information exchange
Passive learning	Active/exploratory/inquiry-based learning
Factual, knowledge-based	Critical thinking and informed decision making
Reactive response	Productive/planned action
Isolated, artificial context	Authentic/real world context

Advantages of online over traditional distance education

- Embedded sound provides immediate access and the ability to listen, record and repeat, relatively easily.
- Students can listen again and again by simply clicking.
- Students can record themselves and critically compare themselves to the presented models.
- Students can be placed in working groups with easier access to each other and the teacher via e-mail, organised chat sessions and discussion boards.
- Students can be set tasks requiring them to interact collaboratively.
- Students can be directed to useful resources on the Internet for additional language experiences and activities.
- The technology can access much more information and offer distance education students many more experiences than before. This gives the opportunity to create activities that are varied, engaging, and interactive, and which use a greater variety of skills. These activities are more likely to be completed by the student.
- The presentation of course material, with coloured graphics and immediate sound, and the possibility of student choice in navigation, can be motivational factors for school students.
- The use of e-mail between teachers and students provides for rapid communication.
- Through delivery system software, student time spent on task is calculable and a quiz feature allows the timing of assessable tasks.
- Teacher records can be derived from student data, which is received electronically.
- Digital sound is better quality than analogue.

For the VSL, other imperatives to move to online delivery include departmental expectations to deliver online and the external threat of competition. Other providers (commercial operators or other schools developing online materials for regular classes) are seeking to move into the distance education "market", and this challenge needs to be met.

Development of materials

When we began online course development, the VSL had some experience in developing multimedia material for CD-ROM and that was our logical starting point. The CD-ROMs, however, were an add-on resource rather than a complete teaching/learning program. They had attracted some external project funding and were a personal labour of love for some staff. They were painstaking to develop and required much of the work to be out-sourced.

The same set of conditions could not apply to the VSL's online challenge since we were faced with the need to develop 42 year-long courses! Clearly, more of a production line approach would have to be developed, and we would want to retain as many of the skills as possible, and keep out-sourcing to a minimum. Development costs would have to be minimal, with high levels of re-use of structures and methods across levels and languages. With no guarantee of major funding, we had to find development software and processes that could be used relatively painlessly by our teaching staff. We also had to decide whether the existing paper/tape courses could become the basis for development, or whether we would have to design totally new materials for online teaching. In the end, it turned out that our distance education materials could provide the basis for online courses. This provided some economy in that we did not have to develop everything from scratch. From this point of view, the existing courses represent significant intellectual property.

Where good teaching methodology, sound planning and creative design had gone into the original material, it was easier to develop online materials. Obviously, some exercises and methods were inappropriate and had to be redesigned, but taken overall, the distance education materials were a good starting point. The better the original, the better the online version. This was also true on a technical level. The better prepared original documents (Word files) generated fewer technical problems after conversion, and these were usually of a formatting nature.

The process of converting existing materials consisted of the following steps:

1. Create a Word template to suit Web delivery.
2. Take the original content — also a Word file — and reformat it in the template. This alters layout, fonts, colours and page size to suit Web delivery.
3. Change instructional design to suit Web delivery. For example:
   - — change references to the cassette;
   - — revise activities to suit interactive features i.e. layer graphics so that they appear one at a time rather than all at once.
4. Colour and manipulate the existing black and white graphics using Photoshop and insert any new graphics.

5. Create a PDF of the Word document and associated graphics. Insert sound, video and external Web links.
6. Develop and insert interactive elements where needed.
7. Edit.
8. Check.
9. Transfer to delivery system.

Pedagogical approach

While going online involves major changes in methodology, it does not mean abandoning all the traditional approaches. For instance, although the majority of the students' submissions were to be completed online, it was thought that at junior levels there was value in retaining some tasks involving writing, drawing and presenting posters that are not easily catered for in electronic mode. This means that students will need to print out parts of the course. Likewise, the traditional individual telephone lessons will continue to be a part of the teaching, as they provide the student with individual oral tuition not yet possible in other modes.

In general, the pedagogy is based on traditional distance education approaches. From a central location, the teacher teaches and manages a dispersed "class" of students who work through prepared course materials according to a suggested schedule or, if they wish, at their own pace. Traditionally, students receive four mail-outs of materials a year, based on printing schedules. In the online environment, the whole course can be made available at the start, and then corrected and amended as needed with immediate effect. The online materials are student-centred and involve individual and group learning tasks, and a high degree of interactivity with the learning materials.

Students may undertake the following activities:

Types of exercises

- Listening comprehension
- Reading comprehension
- Role-playing conversations
- Recording of student audio
- Drag and drop — for example, the student listens to the description of the time in the LOTE, and drags the hands on a displayed clock face to represent the correct time.
- Word games and puzzles — memory/crossword/wordfind.
- Multiple-choice and True or False questions

- Information gap/Cloze
- Problem solving activities
- Pairing/grouping of language items
- Completing charts
- Writing — paragraphs/dialogues
- Interviews.

Web activities

- Research — often from linked Web sites
- Using other sites to complete an activity — for example, write and send a greeting card or plan a trip
- Connect to sites from Germany to communicate with German students.

Collaborative activities (some are still being developed)

- E-mail — writing collaborative stories/scripts
- Student-created Web pages. Templates are provided to enable students to create simple Web pages describing their interests, family etc.
- Discussion board
- Virtual chat session with white board — for example, a city map is displayed on the white board and students converse in the LOTE to plan, and then draw on the screen, their route to navigate to a destination; or a Web site in the LOTE is displayed on the white board and students collaborate to find information and discuss it in the LOTE.

Options, in the form of extension exercises and further Web links, are used to provide enrichment. Grammar tips and cultural information are integrated within the course material.

Students also have available a cumulative glossary. Every two weeks, students complete oral or collaborative activities. Some of the work is for self-correction, while some has to be submitted to the teacher by e-mail using a simple *Submit* button.

Types of feedback

Immediate feedback is provided within the course modules by a combination of sound and text dialogues.

Student work is automatically exported as an Adobe Forms Data Format (FDF) file and sent online to the teacher for correction. The teacher has a correction module for each course unit, which presents the student work in its original course context together with data (maintained by Blackboard) about things like the number of attempts and time on task. Once the teacher's corrections, comments and optional grades are complete, they are forwarded to the student online and recorded in the school's student database. The students also receive feedback as part of the regular telephone lesson.

The greatest pedagogical challenge, in all types of distance education, is the need to improve teacher/student feedback, and to involve students in interactive and collaborative learning. A number of studies (Harasim et al 1995) point to the fact that communication among students using information technology in classrooms may actually increase. As yet, we are not aware of equivalent findings in distance education. If there is no substantial improvement in these crucial areas, then the benefit of going online is much reduced.

Through the delivery system software, students are able to get immediate feedback on exercises that lend themselves to self-correction. E-mail allows for speedy transfer of other work designated for submission. There needs to be a careful balance between such activities.

In the VSL online materials, improved interactivity and collaboration have been planned for, though only partly, developed. This is because these are the hardest things to do, they consume a lot of time, and there are technical issues associated with many of the communications features.

In order not to overburden ourselves and students with technical demands, we have decided to gradually develop communications options in three phases. In the first instance, we want to focus on development of course content with feedback and interaction provided by telephone lessons and e-mail activities. Once this is well established, the second level of development will incorporate chat and bulletin board activities. After that, the third layer will take the form of videoconferencing.

Trialing of all communications features has taken place, even though the course only contains telephone and e-mail activities at this stage. As "higher level" communication activities are incorporated, telephone and e-mail use may need to be scaled down. How we schedule and manage all of these activities is a challenge before us. Even then, there is a greater challenge — getting school age students, at a distance, to undertake the activities.

Technical approach

Our approach has been driven by the determination to produce content to reflect the learners' needs and not by the technology. We took into account the technological literacy of our students and teachers, and their potential access to technology resources in the distance education environment. In addition, it was imperative that we developed material which would minimise any impact on the school's limited budgetary resources. We had a significant investment in our existing library of content developed for print delivery — course documents, black and white graphics, and analogue sound on audio cassettes.

Our instructional designers were practising teachers and course developers with limited exposure to technology. We provided professional development, which focused on alerting them to the possibilities that technology brings to curriculum development, rather than detailed exposure to the use of particular software packages. We evaluated all the major software packages currently available for content authoring, and produced sample "converted" course modules in several, including Dreamweaver, Director, Toolbook and Acrobat. This content varied from high-end animations and game-based interactivity, to flat Web pages into which links to sound files were inserted.

One of the main issues in choosing development software was to determine the level of interactivity needed. This had to be weighed against its cost effectiveness. The real question was how much interactivity was needed by students to be motivated to do the work and achieve successful learning outcomes.

It seemed to us that children, and probably the adults around them, had become seduced by the high-end graphics and interactivity of the video game and the "educational" CD-ROM. Integration of video, sound, graphics and animation combined with multiple entry points has created a busy and circular style in much of the material designed for school children. However, we had not seen the research basis or educational justification for this approach (beyond that provided by the educational marketers), and our instincts suggested that a more straightforward, mainly linear, progression through uncluttered content could be equally attractive and successful with students. This view is supported by the research quoted in Part 3, which suggests that student perceptions of the usefulness of Web materials are largely determined by clarity, organisation, navigation and feedback issues, rather than quality of graphics. It is this sort of thinking that underpins our development and to our mind justifies the simpler structure of our materials. Indeed, once we had developed some trial material, it became apparent that its relative simplicity was an attraction. Students took it in their stride.

It also became clear fairly quickly that the level of interactivity that high-end development tools provide comes at too great a cost. We could not afford that level of development cost for the scale of material we needed, and so we continued experimenting with HTML and PDF files, eventually settling on PDF as the preferred format, choosing it for its stability, relative user-friendliness, low cost development, and some technical advantages. (High-end multimedia could always be developed and added as it became affordable.)

As all course material is treated as an "object" by the delivery system, there is no requirement to limit course development to particular packages. While we were therefore free to determine which application software was required to deliver the desired outcome, we wanted to select a core structure for each course module to provide a consistent structure and style. That core is provided by PDF. Course content is created or edited in Microsoft Word and converted to PDF files using Adobe Distiller. Apart from the relatively low development costs, the PDF core was selected for a number of other reasons:

- Browser independence means that all students will have consistent access
- Stability — client settings do not affect layout
- The best desktop publishing tools can be used for layout
- Fonts are embedded so that all layout and typesetting is retained
- Total Vector support means that, unlike HTML, the content is scalable on the user's screen and printing is of presentation quality
- Limited technical expertise is required to create PDFs.

Many people still see PDF as a static file format used to print documents. However, we discovered that this is far from the reality. Utilising Adobe's own implementation of JavaScript, we were able to build customised interactivity that gave us, for example, the equivalent of HTML layers on each screen, with graphics or other objects being turned on or off when a particular event occurs. More importantly, the content creator needs no knowledge of JavaScript or programming concepts. Use of the interactive functionality simply requires the user to attach the name of the required function to a button. Sound, movies or other content objects are inserted by selecting an area of the screen and pointing to the relevant file which is to be delivered. Functionality, such as immediate feedback, returning student work for correction, and tracking student activity, is all carried out in the background by the embedded JavaScript, often linking to an Active Server Pages script on our Web server.

Utilising the PDF core means that an existing print based course unit, consisting of approximately 2-3 hours of student work, can be converted for online delivery in a basic form in two days, with an I.T. trainee assisting the instructional designer.

Where PDF does not offer adequate functionality, or where we want to offer the student multiple pathways, a link from the PDF screen takes the student to another content object, such as a live Web link or a Shockwave, or other module stored on our Web site or on the accompanying CD-ROM.

Student feedback/perceptions

At this stage, we have not received feedback from sufficient numbers of students to make a reliable large-scale assessment. In 2001, we will formalise the data gathering with extensive surveys. However, the initial feedback suggests that students enjoy working on the online material, and that they find the experience much less painful than the traditional paper method. In particular, students have been very positive about the e-mail function and the immediacy of feedback that is possible. Other students enjoyed working with the PDF worksets, since they provided them with a degree of interactivity, interesting coloured graphics, and a choice in navigation and sound at a click. A number felt less burdened by the tasks and even admitted they enjoyed completing the work! In general, the online environment is perceived as effective and meaningful, once the technical and other frustrations are overcome.

Here are some initial responses from students:

> *"I find the worksets on the computer to be much more interesting, as you can control what happens. The graphics and sound are quite good and very interactive. Sometimes the instructions are not quite clear as to what you're meant to do with things but on the whole I think it is a vast improvement to the work books."* Kim
>
> *"I liked the online version better than the last. You fill out all your details first, and it tells you what activities you have completed. If you're wondering why I didn't do the practise activities, it is because I didn't open the work up in the browser, and then I lost it all! So now I have to remember to open in a browser so I don't lose the work!"* Rebecca
>
> *"I'm glad you received the Internet work, and I really enjoy using the program, I just hope that I will be able to access the work that I am doing at the minute, soon. Unfortunately I won't be able to ring you this Friday because I am enrolled in a First Aid course..."* James

Not everyone has been as positive:

> *"I learn more from writing on paper than working online – but it is good for revision."*
> Aaron

It is encouraging that some students have already expressed a preference for this method of learning even though they could not be described as confident computer users. Others, regardless of our expectations, have been discouraged and given up when things may not have worked immediately. Even though the interface is user-friendly, some students have needed considerable support with installation, and some prompting as to the different mechanisms involved in navigating through the material. For us, it is a matter of great frustration when we get pleas for assistance, but, because of the distance, are unable to determine exactly what the problem is. Younger school students will often not be able to adequately express their concerns. At the other extreme, we also have students who are overly confident. One ignored our installation instructions because he knew a "better way" to do it. This resulted in major problems, of course.

Evaluation/observations

The greatest difficulties for us have been in the area of access to technology in schools. While the technology is often in place, it is seen as a burden in some schools to have to arrange student access outside regular timetables. In an initial survey of schools, there was overwhelming support and encouragement for the online course, but when it came to the practicalities of giving technical support and timely access to students, very few schools were helpful, and we feel let down to a degree.

Schools are also required to provide all students with e-mail accounts. In many cases this had not been done. We are currently working on strategies to address these problems for the next school year. These will be based on getting the Education Department's assistance to offer support to schools.

The relative youth of our clientele meant that schools could easily get away with not doing much. Young students do not have the confidence to keep pressing for access and they may revert to working with the printed materials when things get too difficult. We made the conscious decision to make the printed material available as a backup, in case online access was problematic, but in retrospect, it might have been better to insist on only online availability for all students trialing the material. A related problem was that we started to trial material halfway through a course, after students had become familiar with working with paper. It may have been better to start and complete the course in the same mode.

A couple of students are accessing the course at home. These are generally the most regular users. They have higher than average technology skills and appear to have technologically literate families for support, although one student stopped sending in work for a couple of weeks because Dad was "changing the ISP again".

As far as the course development team is concerned, the process has been an exciting one, even though we have felt some frustration as a result of working in isolation. It is difficult to find others doing like work, let alone models to follow. It would be good for our developers to meet with others involved in course delivery in this mode. As a development team, we have also had to manage the tension between getting material out in accordance with a production schedule, and the desire to devote maximum effort and creativity to development. Compounding this is the uncertain nature of funding in the medium to long term. It is difficult to set production schedules in the short term without such information. When the VSL decided to contribute significant resources to online development, there were added problems with staff not involved in the work who resented their increased teaching loads. To help overcome this, we have involved other faculties (languages) in smaller scale development.

At the start of 2000, we had the option of jumping into the online development of a complete year-long interactive course, or to keep experimenting with add-ons and small scale or lower level development. In many ways, we probably were not ready for such a large undertaking, though it remains a question as to when we would have been ready, anyway. The first year was a necessarily exciting and overwhelming experience. It has been a journey filled with frustrations — uncertain funding, technical setbacks, difficult access for students, evolving team dynamics and slow progress — yet there is not a member who does not want to keep going.

Biodata

Stefo Stojanovski has been a secondary teacher of LOTE (Macedonian) and English and is now an Assistant Principal with the Victorian School of Languages. He has had extensive involvement in LOTE curriculum development and is currently managing the online development project at the VSL.

Fred Hollingsworth is the IT Manager at the VSL. He manages the development of the systems software, undertakes technical research and provides strategic technical advice to the online project. Fred has a varied work history with this being his first position in the field of education.

Jennifer Saynor-Locke has been a teacher of German in a distance education setting since 1979. During this time she has also been involved in the development of new

German courses and support materials for the VSL. In the last two years she has developed her computer skills and is working in the area of online course design and delivery.

References

Harasim et al (1995) *Learning Networks: A Field Guide to Learning and Technology Online*, Cambridge, Mass: The MIT Press.

Nair, P. (2000) *Education Through Technology Integration: A Template for School Design*, New Jersey: Rutgers University.

Building "Bridges":
Design issues for a Web-based Chinese course

Jane Orton
Department of Language, Literacy & Arts Education,
University of Melbourne

Name of site:	Bridges To China — an intermediate Chinese course, accredited as a Graduate Certificate in Modern Standard Chinese by the Melbourne Institute of Asian Languages and Societies, the University of Melbourne.
Name of developers:	*Concept and project director:* Jane Orton. *Instructional design team:* Jane Orton, Isabel Tasker, Liu Mingchen, Doug Smith, Mary Farquhar, Tang Ying. *Interface design team:* Ric Canale, Gangmeng Ji, Albert Ip, Daniel Alisauskas, Paul Fritze, Hong Fu, Maggie Sung. *Graphic design:* Mark Saul. *Administrative assistant:* Lyny Falduto.
Institution:	NALSAS Taskforce
Budget:	A$500,000
Mode of delivery:	Web-based, supplemented by one audio CD and one video CD
URL of site:	http://www2.meu.unimelb.edu.au/b2c/

Context

The project

The design brief for the project stipulated a course of Modern Standard Chinese suitable for educating those who would become teachers of Chinese. In practical design terms, this meant developing a course of interest and value to students who need to become linguistically and interculturally competent in a variety of real-life contact situations with native speakers in modern China.

The brief also stipulated that the course was to be delivered in distance mode. The decision in 1997 to design a course on the Web was made in recognition of two factors. One was to reflect the importance multimedia was already playing in the lives of the young. The other element was the fact that technological advances were providing a radical shift in the very notion of knowledge and learning which demanded that educators begin to build links between past and future repositories and sources of fact and inspiration. At the same time, it showed the urgency for teachers to become familiar with the new technology, which their students already took for granted, and to get in tune with the altered learning styles and interests that the new media were generating in learners, often only ten or so years their junior.

The designers

The curriculum design principals included the author and Liu Mingchen (University of Melbourne), Isabel Tasker (Murdoch University, W.A.), and Doug Smith and Mary Farquhar (Griffith University, Qld.); the software designers, headed by Ric Canale with Gangmeng Ji, were from the Multimedia Education Unit at the University of Melbourne. All members of the curriculum design group spoke Chinese, were computer literate and had had some experience creating and working with non-print resources. Liu had taught Chinese using Web-based newspaper articles, Orton had designed a video for teaching Chinese (Orton et al 1995) and had taken an introductory course in multimedia design, and Tasker (1993, 1994) was already comfortably experimenting with multimedia for teaching Chinese. Liu, Tasker and Farquhar were experienced university teachers of Chinese and Orton had designed and taught a 60-hour advanced level Chinese program for practising teachers (Orton 1994). Tasker and Smith had experience as support tutors in distance Chinese programs. Farquhar (1991, 1994) was a recognised expert in contemporary Chinese cinema and in the use of film for language teaching. Tang had illustrated the National Chinese Curriculum for school students (DSE 1992) and was experienced in recording teaching materials. The software group were veteran curriculum designers with substantial experience in database design (Canale & Ip 1996; Ip & Canale 1996).

The nature of modern work

Project members came from two widely separated ethnic cultures, with four of the principals being non-native speakers of English, and were located thousands of kilometres apart. They represented three fields normally kept separate by a large gulf in professional and cognitive style: language curriculum design and pedagogy, information technology and multimedia, and visual arts and aesthetics. Like more and more people in the 21st century workplace, joining the *Bridges* project meant that team members found themselves among a small, impermanent group of highly diverse, independently employed, expert colleagues, most of whom they did not know, all facing a fascinating but demanding professional challenge. In these circumstances, two sets of related factors seem salient in explaining the success of the project. Firstly, all members had substantial expertise in their field, and were extremely interested in the challenge of moving their work on to the Web and finding solutions within the confines of the brief and the exigencies of the other domains involved. The project thus offered everyone involved the chance to stretch and entertain the mind, and provided scope for satisfying achievement. Secondly, on the wise advice of Ric Canale, substantial time was allocated to concept development. This was complemented by the collaborative processes used to develop the concept in meetings attended by all principals. As a result, from the start, there was strong commitment to decisions made, and among members there developed relationships of sufficient mutual respect and understanding to sustain communication across the various divides, even under pressure.

Concept development

Parameters

The brief was to design an intermediate level course in distance mode, suitable for target learners — specifically, practising teachers (of another subject) who want to upgrade their Chinese language skills to the level of a teacher. The major design implications of these conditions comprised (i) basic parameters, (ii) general pedagogical requirements, (iii) practical considerations, and (iv) issues of language learning.

Basic parameters of brief:

- Learners would be isolated adults, most studying after work.
- Content needed to be modern Chinese and provide information about modern China.
- Outcomes — learners would need to handle the National Chinese Curriculum, that is, be able to speak, and not just read, Chinese, and to run a class in Chinese.

- University award — working through the content and processes should be an intellectual and educative experience, and would need to meet accreditation conditions.
- Purposes — learners would need to discover how technology can assist in the acquisition of language and in the educational experience of learning it.
- Facilities — learners could not be expected to have more than modest equipment.

Pedagogical requirements:
The curriculum was governed by two key pedagogical requirements. Firstly, there needed to be a structured learning process in three stages: one, where the new could be presented; a second, where students had the opportunity to gain gradual mastery over it through guided practice; and third, a performance stage, where students applied the new, integrated with the old, by themselves. Secondly, at the same time, in stages one and two there had to be help available if needed, and the activity of stage three had to be structured so as to allow the learners' developing proficiency to be assessed.

Practical consideration
The major consideration was that the course was for invisible learners. That is, people on their own, possibly working at odd hours of the day and night, without easy access to help if they got stuck or made mistakes. A second practical problem was nominating a starting point for the course (and hence the prerequisite learning for entry) and an appropriately higher finishing point.

Issues of language learning
Issues in the learning of language, and of learning Chinese in particular, required constant consideration in the design of three key matters. Firstly, the two-way interaction natural in language use had to be provided. Secondly, there needed to be concentrated assistance for English speakers learning Chinese with the major tasks of acquiring tone and characters. Thirdly, there needed to be support for intermediate language students in major learning tasks. Primary among these are acquiring large amounts of vocabulary — a great burden on memory — and developing control in using the language as an adult. Thus, there needed to be provision for both the language itself to be the object of learning — giving the learners good opportunities for manipulating its surface features so as to gain control of it — and for the language to be the medium for doing or understanding real tasks in writing and speech, which were genuinely of potential interest or entertainment.

Processes

The principles employed in the management of the project were that people do best when they know what they are doing, are in control of their own work, have opportunities to discuss their discoveries and problems, and share a fundamental orientation to people — in this case, especially to learners. Although none were friends, or even faculty colleagues, the author had at least some personal acquaintance with the expertise and interpersonal style of the curriculum designers and head of software design, Ric Canale, when she invited them to join the project. Ric then selected his group of software designers, programmers and the graphic designer from among his colleagues. Similarly, Ric wrote the technical budget for the bid and received that amount as a lump sum, for which he had control and accountability.

The primary structure of the course was settled in the first series of meetings of the principals, which was held over five days at the start of the project. The form of this conference set a pattern which continued whenever interstate members were in Melbourne, which was about twice a year (although it did not always comprise the full complement). On these occasions, curriculum and software committee members met separately and together. And at least 40% of the time was left available for individuals to follow up matters with one another. Members often ate together, but one mealtime was scheduled for formal "bonding time", when all came together to network and connect in pleasant surroundings.

The first activity of the curriculum design group was a brainstorming session which aired a wide range of interests, ideas and worries. These issues were grouped as they were listed on the board, and refined and developed during the following sessions where they became the basis for the first map.

Administration

Instruction/Navigation

Presentation

Practice

Application/Assessment

These headings were opened up and gradually the topography of the course was charted:

Presentation:

Pre-teach, text, feedback (comprehension).

Text Support:

Vocabulary, characters, notes.

Practice:

Graduated exercises on characters, vocabulary, sentence and text structure, discourse markers, register, text types.

Skill development:

Listening, speaking, reading, writing, noticing.

Chinese specific skills — dictionaries, full-form characters.

Application/assessed activity:

Activity to demonstrate proficiency.

Extension:

Reading for information or entertainment and realistic communicative activities — assessed re ideas and communicative competence.

Administration:

Is this course for you?

How to sign on.

What you will need > Technical Help & Navigation.

How to study on your own.

Members were invited to name those parts they were interested in working on primarily and secondarily. Coming after three days of discussions together, this was an exercise which provided no surprises. All were interested in everything! And especially interested in those areas in which they already had expertise.

The designated entry point was the end of one of the existing beginner courses. From that course, students will have covered all basic grammatical structures, know hundreds of items of vocabulary, will have encountered some 1500 characters and should have acquired some 380 for their own use. This low number of known characters had the advantage of making the course accessible to a large number of people who had learned Chinese in a variety of ways, but who either no longer had, or had never had, a strong knowledge of characters.

From this starting point, the course gradually took shape as four topics, each comprising three modules that presented three thematically related aspects of the topic (see Figure 1). The modules, in turn, comprised two sets, each dealing with two thematically related aspects of the module focus. A topic thus comprised six sets of work on the theme of the topic. Keeping in mind the Australian focus of the selected beginner course, the *Bridges* course was planned to start in Topic A by looking at China from afar and from the ground up — the land, society and culture. In Topic B, learners, as foreigners, would become familiar with modern Chinese life and experience it by "living" there (virtually), and learning from the experience. In Topic C Part 1, this contact would be supported by learning about China from a Chinese perspective; the modern history and the enduring cultural heritage. Finally, in Topic D, they would meet and engage with the issues of contemporary China as experienced and expressed by Chinese. In Topic C Part 2, they would experience China personally by going there and engaging with Chinese people. (See Figure 2)

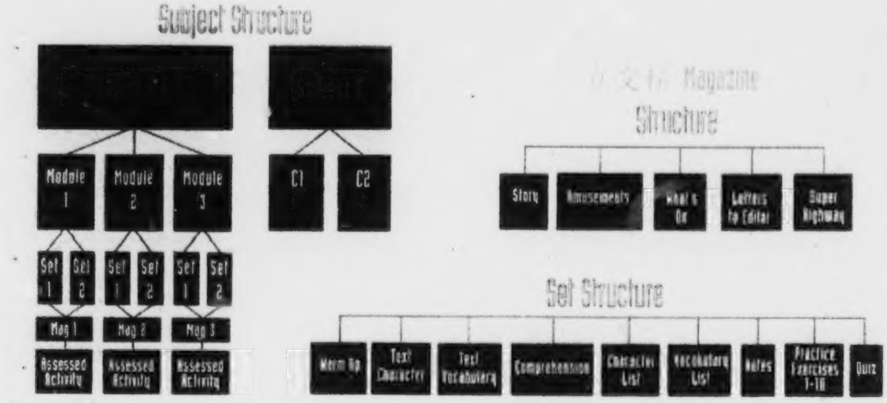

Subject Structure
Module 1
Module 2
Module 3
C1
C2
Set 1
Set 2
Set 1
Set 2
Set 1
Set 2
Mag 1
Mag 2
Mag 3
Assessed Activity
Assessed Activity
Assessed Activity
Magazine Structure
Story
Amusements
What's On
Letters to Editor
Super Highway
Set Structure
Warm Up
Text Character
Text Vocabulary
Comprehension
Character List
Vocabulary List
Notes
Practice Exercises 1-10
Quiz

Figure 1

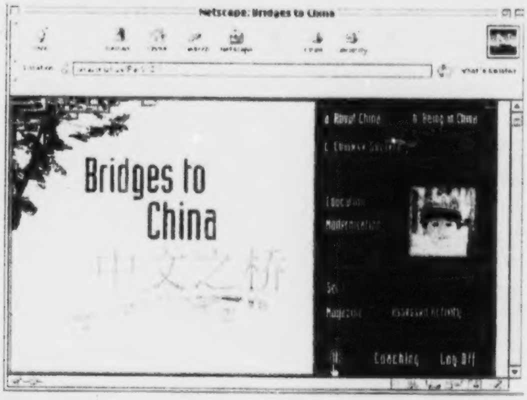

Netscape: Bridges to China
Bridges to China
中文之桥
A About China
B Being in China
C Chinese Society
Education
Modernisation
Set
Magazine
Assessed Activity
Coaching
Log Off

Figure 2

Initially, an entry module was envisaged, during which the disparate group of learners could be merged to form a class, and the individuals could master the technical demands of the course and adjust their lives once again to include study. Due to accreditation issues, this idea was dropped, but the structure of Topic A, Module 1 assumes students will be facing these challenges in addition to the Chinese language itself, and is consequently of lower demand than the modules which follow. Topics A, B and D introduce new language. Useable contemporary language as content, and "learnability" as process, had been two key planks of the tender application. The primary concern was to avoid the pitfall typical of intermediate courses at university, where the student who has just completed a structured beginners course is suddenly immersed in the world of native speaker ideas through a range of texts which require grappling with the grammar and cultural allusion of the highly literate, and an avalanche of new vocabulary. This is difficult even in languages such as English and French, where cognates can carry some of the load, but in a language where every word is new, and every word adds new characters to the memory burden, it is guaranteed to cripple all but a few. Frequently, the outcome is learners whose receptive skills continue to develop while their expressive use of

BEST COPY AVAILABLE

language becomes stunted. While weak speaking may be remedied to some extent by sojourns in the country of the target language, few learners of character languages develop their writing beyond the basic skill of writing down, so their composition of texts remains constructed solely in the genres of the mother tongue.

It was generally agreed that even diligent target learners were unlikely to be able to acquire solidly — that is, understand, pronounce and write unaided — more than 30 new characters a week and about 40 new items of vocabulary, and even to achieve that, they would need considerable opportunities for practice. In addition to supplying these opportunities, a quiz, which would be part of formal assessment procedures, was added at the end of each set to act as a reminder and as incentive to keep up with learning new language. After doing two sets on the module theme, each comprising a text with its accompanying supporting activities, notes, exercises and quiz, there would be further opportunities to encounter the language of the module in a magazine issue. The magazine would present an extensive reading text drawn from native speaker sources, puzzles and word games. Finally, students would be directed to the module theme in the real world of the target language via the Internet. At the end of this work on the module, a student would be expected to complete a comprehensive assessment task.

Content

A range of existing teaching material at the target level was considered during initial meetings, but most had only one or two strengths, and then fell away badly against other criteria. There was, too, the problem of payment for using other people's texts, and problems with copyright were foreseen when, inevitably, existing texts would need to be altered to do what was wanted. Apart from any other factor, however, the decision in the interests of learnability to hold to a weekly limit of 30 new characters and 40 new items of vocabulary, and provide substantial varied opportunities for practice, made it necessary to write our own texts for the 12 sets comprising the first two topics. A second factor was the low character base of the nominated starting point. As preparation for entry to the advanced level, and having grown through the experience of the course, in Topic D, students would meet texts taken from material written for native speakers.

The choice of specific content for all texts was shaped, in part, by the range of subjects and text types from everyday life which were not included in the nominated beginner course, and were likely to be of interest to the age group. At the same time, there was a very explicit choice of material and learning processes which would inform and educate the learners about the dynamics of heritage and modernity in contemporary China, about the nature of language, and about the cognitive and emotional process they needed to go through to open themselves successfully to a new language and culture. The intended outcomes were people who were linguistically proficient, interpersonally competent and interculturally aware.

Topic A	Topic B	Topic D
Demographic Table	Phone call Pedagogical	Theory (textbook)
Conversation	Map	Brochure
Magazine Ad	Photo Captions	Newspaper Article
Newspaper Article	Diary Entry	Interview
Speech	Dual topic conversation	Newspaper Article
Nursery Rhyme & Classical Poem	Letter	Academic textbook

Magazine		
Myth	Modern Poem	Journal Article
Personal account	Short Story	Interview
Songs	Recipes	Book Extract

Text types were then checked against the categories of text type and function of the Australian Language Learning Guidelines (Vale, Scarino & McKay 1990), the National Chinese Curriculum for Preps-Year 10 (DSE 1992) and the Study Guide to the Victorian VCE Chinese Curriculum (VBOS 1997). The 380 characters of the Open Learning were also checked against the Hanyu Shuiping Kao Shi (a test of Chinese designed on the model of the TOEFL test of English) and VCE lists. These investigations showed that characters, text types and topics proposed for language development were suitably targeted. Skills in descriptive account and persuasive argument were selected as two principal functions, and factual report and letter writing as two principal text types, to be the focus for development in students' writing.

At the start of the project it was unclear what the quality of sound files online might be, and whether it would be possible to make viable use of video clips for speaking instruction. The possibility of listening and speaking being supplemented by independent CD-ROM resources — as has eventuated — was mooted at the time, but the question was left for the first year until it was clearer what could usefully be provided on the Web, and what might more sensibly be dealt with independently. Similarly, it was agreed that meta-instruction would appear as a Main Menu window called *Coaching*, but the contents of that segment, though conceptually developed over the whole production time, was the last to be written.

In most university language courses, culture and authentic language are encountered through literary studies. The potential loneliness of the isolated target learners, and their possible lack of easy contact with speakers of Chinese, were both significant factors in suggesting film, rather than books, as the medium to present the sociocultural knowledge of China. Watching a film on video at home with family members or friends seemed both a companionable activity, and one which would provide a sympathetic audience to whom the students could expound their growing understanding of Chinese society. The fact that China's contemporary cinema scene was so exciting and full was another factor in the decision, being itself a significant cultural advent, as well as a rich resource to explore. The visual medium could permit direct access to some views about Chinese society, and even though the messages received would inevitably be filtered by the ethnocentricity of the learners, at least the triggers would be Chinese views not Western ones. Finally, while these were the primary considerations for opting for film and it was not intended to make use of the films as language material *per se*, it was appreciated that, sub-titles notwithstanding, they would also provide a great support to language acquisition, exposing learners to whole flows of language couched in perceivable physical and psychological contexts.

In the time permitted it would be possible to offer six films. The criteria for selection were that they be significant in themselves as film genre, provide information about twentieth century Chinese history and society, and illustrate some enduring themes from Chinese tradition. There was almost no debate that the first should be *Yellow Earth* — it not only fitted the criteria, but was also thematically related to the first topic. A number of contenders were discussed for the other five places. The films finally chosen provide information and understanding of the great tumultuous events of the century, issues within Chinese society to do with generations, gender and social roles, and ways of dealing with outsiders, and which acknowledge the Chinese diaspora. The award-winning documentary, *A Breath*, not only displays one of the great Chinese art forms — calligraphy — but does so through the life of an artist who now lives in Australia, and who did the calligraphy for the very film subject the students are taking. Thus, it closes the loop between learners and content, and moves the course subject matter right into the students' own lives.

Administrative issues

To meet university accreditation standards, the four topics became separate subjects, with the three language subjects each designed to run over a 15-week period, with the film course running concurrently, and the visit to China at the end. Stringent conditions for preventing cheating require enrolling students to provide a 1-minute videoed self-introduction in Chinese, personal presence on the visit to China, a video of the final assessment task, and close monitoring of written and spoken standards of work during the course.

Technical issues

The software designers had a number of serious challenges in their own field. These ranged from finding a suitable carrier to provide parameters for constructing the database that would hold the course content, to working out how to get the three scripts of Chinese characters, Pinyin romanisation and English alphabet on to the one page, to building templates for the various movements of the exercises. An equal challenge was to work (for the first time for all of them) with language educators who were ambitious about their own domains and, while computer literate, included only one person who had had anything but introductory experience in instructional design for multimedia activities. From the first meeting, three contributions from the software designers ensured success, as they combined to structure a very solid but flexible support for the curriculum development, and hence for the project as a whole.

Firstly, the software designers were determined that the content would all be produced directly in HTML, a quite radical suggestion in 1997. Developments in software meant that a number of programs for writing in HTML were already on the market, and one of which, *Visual Page*, could support the three scripts needed and demanded little change in ways of using the word processing programs all were used to. A second suggestion was to construct a project Web site, which would enable work to be put up in an environment similar to the final location and shared among project members across the country as soon as it was completed. This allowed work in progress to be reviewed and critiqued quickly, which kept things moving. Less obviously, but possibly even more important for fit and coherence, it permitted certain parts of the work to be seen and discussed — regularly, in pairs or individually, quickly or at length — during development of other parts, which gradually built in all participants' minds a picture of the whole. The Web site was also useful for weekly reports and other administrative matters, but its major role was as a site for drafts to be displayed. The third factor which made a difference from the start, was the plan to develop the practice exercises — that part of the set most likely to be variable from set to set — in "families", with each family demanding the same transformations of the language text. On the surface, of course, even exercises from the same family could still appear to be quite different due to varied context and artwork. As the prototype exercises were developed, templates were designed to hold them, thus making later work quicker.

In order to obtain high quality graphic and audio files which could be quickly downloaded from the server, it was decided to have a multimedia resources CD to support the Web-based course.

During the first meeting days, the group shared viewing of several existing multimedia programs for languages and other disciplines, and the software designers presented a broad sampler of cached material illustrating various functions which could be performed on the Web.

Pedagogical Approach

The language topics

The three language topics each subdivide into three modules, comprising two sets, a magazine issue and an assessed activity. (See demonstration set http://www2.meu.unimelb.edu.au/b2c/) The focus of a set is a text, a real or realistic piece of Chinese discourse presented in written form, with optional audio. Each text provides new language, which is shown by colouring the new words in blue. Thus, it is possible to present the learners with the whole text, and at the same time inform them what they should already know (in black), and what they need to learn (coloured items). Using a hyperlinked gloss to give the meaning of the new coloured language in a pop-up balloon, learners can read the text as a whole, and gain some sense of it from the start as a story or letter or article. While this would be convenient for learners of any language, eliminating what can be quite lengthy delays consulting a Chinese dictionary, or even a vocabulary list, it means a radically improved encounter with a new text. Because new characters and new vocabulary are not necessarily the same, two versions of the text are provided, one glossed in blue for the new vocabulary, and one in red for the new characters.

Fuller meanings for the new items are provided in vocabulary and character lists which give grammatical categories and example sentences in characters, pinyin and English, plus the radical for each new character, and the measure word (classifier) for each new noun. This was done, in part, because measure words and radicals are often hard to identify and not easily found in useable lists. And, in part, because it was felt that constant, frequent exposure to these radical and measure word classification systems might develop a gradual sensitivity to the systems themselves, and the underlying commonalties of many co-classified items.

As pop-up windows, these lists can be available at all times while a student is working on a set. They can also be used independently as sources of information and, by widening and narrowing the display, as material for memory exercises and self-testing.

A text is also supported by notes about the language and culture which attempt to draw meaning boundaries for the new language and its use, in terms of Chinese already known and mother tongue usage.

总起来说 generally speaking, on the whole

一般来说 generally speaking, normally

Like the English expression 'generally speaking', **总起来说** is used to make a generalised statement. In the dialogue, the climate in Beijing is described in general terms:

总起来说，热的时候可以很热，冷起来也相当冷

In making a general comment on something, you can always use this expression to begin your statement. For example, if you are asked to make a comment on the course:

你觉得这个课程怎么样？

What do you think of the course? and you think it is on the whole pretty good, you may reply:

总起来说还不错。
On the whole, it's quite good.

一般来说 which appears later in the dialogue, is similar to **总起来说** in both meaning and usage and the two expressions can often be used interchangeably. There are, however, subtle differences between them. While **总起来说** emphasises the whole or the total, **一般来说** emphasises the common and usual situation. For example, when you are expressing your general attitude toward your study of Chinese, you may say:

总起来说，我学汉语一直很努力。
On the whole, I have always worked very hard at Chinese.

But when you specify how many hours you normally spend working on it, you may say: **一般来说，我每天学习三个小时汉语。** Normally, I study Chinese for three hours every day.

Prior to tackling a text, students are introduced, via a warm-up activity, to the title of the set and its relation to the themes of the module and topic. They are reminded of the proficiency objectives of the module encapsulated in the major task of the assessed activity, and encouraged to make predictions about what might be included. For example:

> Anticipation 预备 his text comprises a letter written after the writer has lived in Beijing for three months. What would you expect might be the writer's concerns? Studies in intercultural learning show that after such a period, initial culture shock often begins to lessen. There is a need to move beyond the euphoria and disbelief of superficial impressions, to come to a deeper intercultural understanding, in which difference is acknowledged. Issues, social and personal, begin to emerge, not only about the new society, but also about the sojourner's own society, and its identity and values. Notice how these occur in the text.

A short exercise is then provided to revise key vocabulary and characters which are not new, to ensure they are active when the text is met.

Once the text has been read and understood, students can work on understanding it themselves by doing the comprehension exercises, or by studying it through the vocabulary list, character list and notes, or move to mastering its various offerings, piece by piece, in some of the practice exercises. They may also choose to move back and forth among these options, and to do them more than once.

After Widdowson (1978), the first of the comprehension exercises requires students to use the new language to create a "simple account" of the text they have just encountered. This requires conscious engagement with the communicative meaning of the text — what it is about, what it is proposing — and with how the language, including the new vocabulary and characters, constructs the discourse. It consists of constructing a paragraph which produces a simple but complete account of the main points of the original text which is made up of linked sentences generated from completing one of the following tasks — unscrambling sentences, matching pieces of sentences listed in columns, identifying true and correcting false statements, filling in blanks in a Cloze procedure, or answering comprehension questions.

At this stage, the purpose of a task using the new language is to engage with meaning and the language which constructs it, not to test acquisition. Hence, while executing these tasks, wrong answers will not remain once they have been selected and dragged into place or matched up, leaving the student to think and try again.

Completion of the simple account leads to making transformations of it. After Kramsch (1993), the first transformation is a reduction of the paragraph to a sentence summing up the main meaning, an answer to the question, "What is that text about?" The second transformation is from written to spoken. This is handled by dialogue completions which require not only comprehension of the surface meaning of the text, but also a sensitivity to the make up and speech style of role type or actual personality — for example, of a Chinese teacher, or of Linda, the young adult Australian protagonist of Topic B.

These later comprehension exercises are done by direct interaction on the screen, mostly in Chinese, sometimes in English. They may be done at any stage and even re-done. Once satisfied with their efforts, however, students then submit their creations to the scrutiny of their study group. Study groups consist of three to four members, depending on the total class size, assigned at enrolment. The study group operates as a threaded forum. It requires submission of a student's own comprehension exercises before those of study group members can be viewed. Here and elsewhere, the forum was included in order to break the isolation and, even more especially, to stimulate students to think beyond the limitations of their usual or preferred style of handling tasks, one of the key advantages of studying with classmates. Thus those of a more literal bent, for example, may discover in the offerings of others, the potential to make jokes or say something quite profound, even within the limits of their learners' language. And, by working through the challenge of determining whether members' contributions acceptably fulfil the tasks, they should find a useful method of identifying their own weaknesses and uncertainties, as well as their strengths. Study group interactions are monitored by the tutor, who can intervene where s/he feels it is necessary, or when called on, in writing to one particular study group forum, or to the whole group forum, or individually by e-mail, voice-mail or phone. Submitting weekly comprehension tasks to the forum and making comments on one's study group members was designed as a compulsory assessment task, though ungraded in order to encourage experimentation.

A key learning principle underpinning the design of *Bridges to China* is that acquisition requires frequency of contact with the new language in an alert state of mind. To avoid the mental switch-off activated by repetition of texts and sentences already known, encounters with new language need to be in constantly varied situations which require thought and decision making. This kind of work is provided for in the practice exercises which involve a group of 10 exercises for each set, each in turn often incorporating three or four parts which develop from presentation and manipulation stages, to practice and application stages.

The practice exercises begin with game-like activities to assist with memorisation of new characters and vocabulary. The exercises then provide work on structures introduced, and conclude with studies of register, discourse formation and/or the specific skills and text creation required for dealing with, for example, handwritten texts, newspapers, or certain text types. Texts are studied closely to assist learners to begin "to notice" (Levy 1997), for instance, how a conversation is constructed by participants, or how the language permits subtle indications of intent which may then be accepted or parried by an interlocutor. For example:

> Conversational Chinese is peppered with sentence-final particles which give much information about the mood of the sentence and the intention of the speaker. This exercise focuses on the particles which occur in this text and gives you practice in recognising and using them.

> In this text, Linda switches between a slightly formal written style, especially in the rather formulaic opening sections, and a more colloquial style, particularly when she is reporting conversation. This exercise invites you to focus on the way register is expressed by differences in language style. First you will identify certain phrases as more or less formal, and then you will match phrases which have equivalent meanings but express different levels of formality.

> This exercise draws your attention to the use of mirroring or parallel structures. This is a stylistic device commonly used in formal expository language in Chinese. It is considered aesthetically pleasing, and it signals the ordering of ideas.

Colour is used to highlight grammatical and discourse structures in patterns, while many of the exercises make use of moving objects, whether in reorganising linguistic elements, in puzzle activities, or in cartoon scenario enactments.

Texts, vocabulary and character lists, and many practice exercises are accompanied by optional sound files. These may be used in some practice exercises for surrender listening, dictation, context creation, articulation and fluency practice through repetition, or in spontaneous spoken practice requiring a creative response to a stimulus. This varied use of sound files is further encouraged in the Coaching section and incorporated into the assessed activities. *Help* and *Answer* or *Check* buttons are available for almost all exercises, with a few open-ended questions set to be shared among study group members and the scrutiny of the tutor. *Help* is graded, usually giving a hint first, with perhaps a reminder of what has already been met in the course or a written version of a spoken item. A translation may be provided if second level help is required. *Answer* allows students to compare their own effort with the right response, while in other cases a *Check* button will activate corrections, sometimes by leaving right answers and removing wrong ones, sometimes by marking answers with a tick or a cross. In a few cases, in order to foster experimentation, answers comprise only a range of likely possibilities, and students are asked to check with others if their particular offering has not been shown.

Trials showed that the quantity and variety of practice exercises were sufficient to have learners acquire the new language of the set simply by doing them. A check on acquisition is provided by the quiz, which is taken at the end of each set.

Magazine

After completing a second thematically related set following the structure outlined above, the student moves to the second part of the module comprising a magazine issue and an assessed activity. As its cover and name (*Li Jiao Qiao* — cloverleaf flyover) show, the magazine is the site of multidirectional interchange — an "establish connections bridge" as it is said in Chinese. It is a link to Chinese China which starts with an authentic text — usually a story — for extensive reading on a topic of relevance to the module theme, and concludes with thematically related Internet addresses. New vocabulary in the story is signalled in colour, and meaning is available by clicking on an item. Other than this there is no attempt to do more than expose students to the additional new characters and language. Further reading is required to do the *Amusements* section comprising puzzles, which entail working out who belongs where, and what goes with what, plus a joke or riddle of some kind. There are also pages for announcements of Chinese related activities around the country, and space for the students to raise matters of their own.

The module concludes with an assessed activity, requiring use of language in realistic communicative tasks which display growing proficiency, and a reflective piece of writing in English on intercultural matters raised by the magazine reading text. For example:

> You are trying to set up a sister-school relationship between the school you teach at and a Chinese school in your state's sister province. The Bureau of Education in China has asked you to write a short piece introducing your town/city, which they will circulate to schools in the province via their monthly newsletter.

Write the description in 200-250 characters. Locate your town in Australia and say something about its size, population and important natural features. Discuss the good points and drawbacks of living there from your point of view — and, where necessary, explain the contexts which frame your views, i.e. which explain why those things are seen as good or bad by you and your community. Make at least 2 comparisons relevant to people who live in China.

Topic C — Chinese Society

Topic C 1, a study of contemporary Chinese cinema, is taken concurrently with the three language topics. The films (videos obtained from providers in each state) are considered from three aspects — from various perspectives of film genre, as stories of twentieth century Chinese history, and as artifacts realising continuing themes from Chinese tradition.

The course concludes with Topic C2, a structured visit to Beijing, where students stay at the university of Topic B texts and visit many of the places and people already encountered in the course. Tasks for this segment require engagement with their environment — a description of an institution visited, a hand-transcribed taped individual interview with a Chinese person about modern life, and a speech on Australia and China that they must give in Chinese to a local audience. While certain exercises throughout the course are to be handwritten, daily classroom tuition in Beijing includes supervision of a handwritten journal entry, as well as preparation for the other tasks. In cases of proven hardship, these tasks may be undertaken in Australia.

Supplementary material

These materials are supplemented with an audio CD called *Listen Hear*, which offers various course-related listening exercises and activities for use away from the computer. Also included is a video CD called *Play Your Part*, which demonstrates real students and a teacher presenting a conversational interchange straight through, then re-doing it in sections, with the teacher providing instruction and feedback to the students, and finally performing it again straight through. Viewers are then invited to join in. In these last activities, the protagonists on screen speak directly to the student (i.e. to the camera) and pause for responses, which may be free or follow the script provided. Coaching notes suggest students tape themselves doing these scenarios — and some of these efforts must be submitted to the tutor.

One innovative design feature of *Play Your Part* is that, rather than show a model of teacher perfection, it portrays a student making errors, being coached toward a better — but not always perfect — performance. The reasons behind this choice are, firstly, that learners may more readily perceive the correct approach when heard and seen in contrast to the incorrect, and, secondly, that learning with another learner may have greater affective appeal than learning alone from a teacher, and hence generate a greater depth of concentration.

Evaluation

Subject matter experts reviewed the materials and commented on linguistic and pedagogical coherence. They felt the former had been very successfully achieved, and with respect to the latter, that there was very good progression from recognition to manipulation to production throughout the materials. Native speakers queried the use of English in instructions throughout the course for the exercises, and the gradual nature of the move to characters for general instructions from Topic A (English), to B (bilingual), to D (Chinese). Non-native speaker assessors called for more pinyin and a full form character version of the text. As there are audio files for each text, pinyin texts have not been included, but a full form version of each text was made available in graphic-only form. All assessors commented favourably on the authenticity of cultural aspects and the attention paid to the sociocultural dimension of content and interactions.

The materials were also trialled with three sets of end users comprising young undergraduates, older students whose Chinese had been learned in a variety of ways, and distant learners. They identified the following as strengths of the materials:

- New angles on learning, memorising, understanding and using Chinese.
- Each exercise has a different form of interaction, preventing the repetition of characters and phrases from becoming tedious.
- Broader aspects of the specific topic than simply the linguistic are taught.
- New methods and exercises to remember new vocabulary are presented.
- A word, rule, pattern, etc. can be better understood and remembered because learned and applied in different situations.

Later, a few regular students asked for paper copies of vocabulary and character lists to be studied away from the computer, which have been easy to provide. Another insisted he needed to download all the material he was to use, a facility not anticipated in this Web-based course and, by chance, one only possible on a Macintosh.

Reflection

Tasks

The tasks designed for the *Bridges* course aim essentially to allow the technology to "make certain known aspects of the traditional teaching and learning paradigm go better" (Barson 1997: 35). And in this role, in the view of the author, there is no doubt that in many respects the Web is superior to print as a teaching-learning medium. The *Bridges* course illustrates this claim in four principal ways.

The first of these concerns presentation. The *Bridges* course unit is centred on a text. With immediate access to new language via the lists and notes open as windows and the hypertext translations of new items, students are allowed entry to the text and engagement with it more nearly as a whole text than as an assortment of linguistic obstacles. This should not only allow the text to be understood, but the chance to read and comprehend almost simultaneously can support both interest and greater reading skill, factors which, in turn, may lead to a success which helps sustain motivation. Once programmed, these facilities allow learning to occur not only without a teacher, but also probably with greater success for being without teacher mediation.

The second and, perhaps, greatest way in which the new technology is superior to print, concerns practice. All language introduced in the course is entered on a database. Manipulations of the data are then programmed into families of exercises. Simple programming results in pop-up character cards, tables of vocabulary, characters and structures displayed using colour, graphics or moving demonstrations of syntactic relationships which students must operate on at various levels of engagement. All lists are constantly shuffled and hence the challenge remains fresh. Data can continue to be added quite simply, as can new ways of using them for exercises. The single largest gift for the learner in exercises such as these is providing the quantity of exposure in sufficiently new and engaging ways to sustain memory. This relieves one of the greatest burdens of the intermediate learner, made all the greater in the case of character-based languages. Degrees of help can be provided, and corrections can be accessed on the spot just after the choices have been made, which makes for optimal learning. The material thus provides the guidance of a teacher through its actual design, but allows for a frequency and variation of encounter beyond the capacity of even the most dedicated and patient teacher.

In the *Bridges* course, students submit to their study group both their own work for the week and their comments on the work of other members. A third benefit of the new technology is the opportunity such a forum provides for the teacher to study students' working processes, not simply their products. This is not essentially an attribute unique to the Web, but its benefits are greatly enhanced by the facility of the medium to allow it to occur at speed and asynchronously. In face-to-face teaching, this work would most usually be done orally and, hence, is quickly lost. The forum work remains on file and provides a visible line of progress for each student.

Finally, the aesthetic and affective dimensions of Web-based learning should not be overlooked, especially for learners who have grown up in a multimedia world. Just as colour transformed the textbooks of an earlier generation, simply being on the screen, in colour and moving, may come to be essential attributes of learnable material for the next.

These four attributes of the *Bridges* course, all within the "agentive" use of the computer (Herrmann 1990, in Debski 1997: 45), provide ways of working which constitute superior tools for both teaching and learning to most print-based material, and processes which match or are superior to those a single teacher can normally provide to a class. With peer interaction, review and regular tutorial guidance available through the forum, and running at a pace likely to fit the expectations of at least younger learners, the Web must rate extremely positively as both tool and teacher.

The area where Web-based language learning cannot be as successful as face-to-face instruction, however, is in dealing with novelty. For example, in interaction, especially spoken interaction, the Web can for the most part only provide material and deal with student attempts where the text is ready-made. Like Halliday (1991: 10), of course, we can acknowledge that "there are many situations where the text is readymade and..readymade text has an important place in learning a foreign language", and hence it is useful. However, what the Web does not provide easily or well is interaction in any natural way. Student-student (or student-teacher) interactions in speech are only possible by voice-mail, while designing opportunities for spontaneous reception and response to novel utterances is laborious and highly artificial. For example, within the *Bridges* course there are exercises which play audio files of unanticipated utterances — contextualised as fragments overheard in the bus, for example — to which students are asked to respond, as if to a friend on the bus. The video CD also offers scenarios to mimic and invites participation. However, at this point in the technological development — and especially using what is generally available to target student groups in the way of equipment — the Web cannot compete with the dynamics of a well-run face-to-face class. And even if the technology allowed greater facility, it must be asked to what purpose beyond a certain level of practice? Most Australians are familiar with a Michael Leunig cartoon in which a father and child gaze rapturously at a rising sun on their television screen, while outside their window the real thing is occurring unnoticed (Leunig 1974: 25). Mindful of this, *Bridges* students are encouraged and helped to find real conversation partners in the outside world, and to make an entry into their local Chinese communities.

Teacher role

Navigation of the *Bridges* course is totally open and subject to natural bias due to the cumulative learning involved in a language course, all the stronger in a character-based language course where a text with too many unknown characters is simply too much labour. The voice of the teacher in all roles is constantly present, although the teacher as instructor voice is muted compared with classroom teaching, often just saying, "Call me if you need me". The most direct, real-time voice of the teacher as instructor comes in the correction of work submitted to the study groups. However the voice of the instructor, combined with that of the model, is also apparent in the practice exercises and notes. The teacher as evaluator is shared with other students in the correction of several exercises, but is silently present in the quizzes, where students may make fixed mistakes until electing to be corrected and graded. The teacher as evaluator is most strongly present in marking the proficiency students have shown in the assessed activity.

Quizzes also enact the role of teacher as coach, insisting that students be diligent and learn new characters, vocabulary and information at a regular pace. The voice of coach is overtly present in the separate section called *Coaching*, a meta-conversation between teacher and student about the course, language and culture, and learning. The key to the voice of the coach is its essentially collegial register, taking it as given that students want to learn Chinese, and are prepared to work hard and do what is required to be successful. *Coaching* provides considerable information and advice and is permanently available, but it is an optional link and can be bypassed. The coach appears in similar voice in the magazine, saying in effect, "I think you'll find this interesting", without requiring direct evidence that anything beyond the story is read.

The course thus enables a positive reduction in the overt voices of teacher as instructor, as model, and even as evaluator — although, tacitly, these underlie the entire design. A critical role for the teacher remains, however, as online tutor, in whatever mode, moving among all roles, adjusting style and delivery in response to perceptions of the student as individual person and individual learner. The primary design issues for the teacher's voice centred on quantity and tone. Has enough been said for the student alone at the kitchen table? Has too much been said for someone reading a screen? How much needs to be told? How much can be told at once? What is self-evident? What can be shown rather than told?

We tried to present a coherent teacher's voice — a voice that might *be* somebody — yet were unable to match differences in student personality and style. We wanted to avoid problems like, is the teacher's voice too solemn? Too impersonal? Does it sound patronising? Presumptuous? Pushy? Fatuous?

And written speech runs the risk of being bland or corny, especially with repetition — what might be amusing the first time can pall quickly when read often or in another frame of mind.

Conclusion

Bridges To China makes an advance in the teaching of Chinese in three ways. Firstly, it is a course which has been explicitly designed to provide an educational experience. Through its choice of content and activities and, directly in its questions and assessed activities, it provides information about China and Chinese language intended not only to increase learners' knowledge, but also to provoke them to reflect and develop in their understanding of self, cultural conditioning, and the nature of language. Secondly, it is a very large set of integrated resources at the intermediate level which realises in practice current theories of language and language acquisition. Finally, it is an essay in making use of the Web to better accomplish many tasks we are already familiar with in language teaching. As such, the course provides an opportunity for research into learners' behaviour with online material and comparative paths of development and success, from which we may discover new directions to move in, using the medium with some confidence of benefit, not only of novelty.

Note

Earlier versions of some parts of this chapter have appeared in papers the author presented at the WorldCALL Congress, Melbourne, (Orton 1998), ODLAA Conference 1999 (Naidu, Canale & Orton 1999), and ASAA 2000 Conference (Orton 2000).

Biodata

Jane Orton, PhD is a Senior Lecturer in the Department of Language, Literacy & Arts Education at the University of Melbourne, where she coordinates Modern Languages Education. Her major research interests are intercultural communication between Australians and Chinese in workplace settings, and the teaching and learning of integrated verbal and non-verbal second language speaking skills.

References

Barson, J. (1997) "Space, time and form in the project-based foreign language classroom", in Debski, R., Gassin, J. & Smith, M. 1997, *Language Learning Through Social Computing*, Occasional Papers No. 16, pp. 1-38, Melbourne: ALAA & The Horwood Language Centre.

Canale, R. and Ip, A. (1996) "Baseline Requirements of an Internet based educational system", in Mak, S., Castro F. & Bacon-Shone, J. (eds), *Proceedings of the Asia-Pacific World Wide Web Conference and The Hong Kong Web Second Symposium*, pp. 28–41, The University of Hong Kong [Online]

http://eddy.meu.unimelb.edu.au/papers/BaselineRequirements.htm

Debski, R. (1997) "Support of creativity and collaboration in the language classroom: a new role for technology", in Debski, R., Gassin, J. & Smith, M. 1997 *Language Learning Through Social Computing*, Occasional Papers No. 16 Melbourne: ALAA & The Horwood Language Centre, pp. 39-66.

Debski, R, Gassin, J. & Smith, M. (1997) *Language Learning Through Social Computing*, Occasional Papers No. 16 Melbourne: ALAA & The Horwood Language Centre.

Department of School Education (1992) *Zhongguotong*, National Chinese Curriculum project, Melbourne: Curriculum Corporation.

Farquhar, M. & Berry, C. (1991) "Action research into developing communicative competence in Asian languages and cultures using video technology — A pilot study", *Asian Studies Review*, 14, (3).

Farquhar, M. & Cao, D. (1994) "Developing language proficiency through literature and films", in Bain, J., Lietzow, E., & Ross, B. (eds), *Promoting Teaching in Higher Education*, Brisbane: Griffith University.

Halliday, M. (1991) "The notion of 'context' in language education", Thao Le & Mike McCausland (eds), *Language Education: Interaction & Development. Proceedings of the International Conference Vietnam.*

Herrmann, F. (1990) "Instrumental and agentive uses of the computer: Their role in learning French as a foreign language", unpublished PhD dissertation, Stanford University, in Debski, R., Gassin, J. & Smith, M. 1997, *Language Learning Through Social Computing*, Occasional Papers No. 16, Melbourne: ALAA & The Horwood Language Centre.

Ip, A. & Canale, R. (1996) "A model for authoring virtual experiments in Web-based courses", *Proceedings of the 13th Annual Conference of the Australian Society for Computers in Learning in Tertiary Education*, pp. 301–307, University of South Australia.

Kramsch, C. (1993) *Context & Culture in Language Teaching*, Oxford: Oxford University Press.

Leunig, M. (1974) *The Penguin Leunig*, Ringwood, Australia: Penguin Books.

Levy, M. (1997) *Computer-Assisted Language Learning: Context and Conceptualization*, Oxford: Oxford University Press.

Naidu, S., Canale, R. & Orton, J. (1999) "Bridges to China: A Web-based course in Modern Chinese", *Collected Papers from the 14th Biennial Forum of the Open and Distance Learning Association of Australia; Open, Flexible and Distance Learning: Challenges of the New Millennium*, pp. 371- 376, Deakin University, Gordon Institute of TAFE.

Orton, J. (1994) "The demands of intensity: Design for a 60-hour intensive advanced Chinese course", *Occasional Papers No. 1 Innovations in Language Teaching*, pp. 107-125, Melbourne: Horwood Language Centre.

Orton, J. (1998) "The teacher's voice", *CALL to Creativity Proceedings*, papers from the WorldCALL Congress, Melbourne: 13-17 July 1998, CD-ROM, Melbourne: Horwood Language Centre 1999.

Orton, J. (2000) "The Web: Tool or teacher?" Paper presented in conjunction with a demonstration of the *Bridges To China* Web-based Chinese course, *ASAA 2000 Conference of the Asian Studies Association of Australia*, The University of Melbourne, 2-5 July 2000.

Orton, J., Swart, R., Isaac, A. & Thompson, C. (1995) *The Rhythm of Language Developing L2 Speaking Skills*, 20 minute video. Produced by MU Interactive Multimedia Learning Unit for the Dept. of Language, Literacy and Arts Education, University of Melbourne.

Tasker, I. (1993) "Computer Assisted Language Learning for teachers of Chinese", in Louie, K (ed) *New Developments in Chinese Language Teaching and Teacher Training*, pp. 44 — 49, Key Centre for Asian Languages and Studies, with the Asialink Centre, Melbourne.

Tasker, I. (1994) *Acalaid*. Interactive Chinese language learning software, Murdoch University, W.A.

Vale, D., Scarino, A. & McKay, P. (1990) *The Pocket ALL*, Carlton: Curriculum Corporation.

Victorian Board of Studies (1997) *The LOTE Study Design: Chinese*, Carlton: Board of Studies.

Widdowson, H.. (1978). *Teaching Language as Communication*, Oxford: Oxford University Press.

Worlds of words:

Tales for language teachers

truna aka j. turner
Faculty of Education, Queensland University of Technology

Prologue

A small computer room in the early 1990s, serried rows of work-stations, fluorescent lighting and no windows, breeze block walls (why were such rooms so often designed like this?). The programs available to the learners are fairly typical of a language computer centre of the era. They include a number of DOS-based language programs, an early version of Windows offering a range of office programs and brand new access to the Internet via telnet. All these programs are text-based and use keyboard commands. The room is crowded with two classes of language students — another timetabling clash! The elementary group is working on a basic text reconstruction program, while a more advanced class is working on word processing an essay. A lone student, probably waiting for a discreet opportunity to join her own classroom, is using a newly-opened MOO; she is "chatting" away — via the keyboard — with another student on the other side of the planet in a completely different time zone. The teacher of the basic class is amazed. "Why can't my group do that?" she asks. The lone MOOer is busy asking questions and responding to queries, talking, communicating. The language opportunity is evident — real practice, real people to talk to ... it is a language teacher's dream. The functional dullness of the typical computer lab provides a gateway into a world of words.

It is this incident that led us to explore and experiment with MOO spaces or text-based virtual realities. We started by integrating the use of MOO spaces into classroom activities, making each learning phase of navigation part of a language teaching point. As time and facilities developed, we became more interested in MOOs as constructive spaces, places where students are able to explore their own creativity and collaborate with others.

This chapter tells some of the stories of text-based virtual realities in language education, and explores the particular nature of the learning opportunities that they permit and encourage... the power of words.

What are MOO spaces?

Essentially, MOO spaces are "multi player, user extendible, real time, text-based environments". They permit *synchronous* or real time communication via the keyboard. A learner in Australia can type messages to a learner in the US and others in Taiwan, for example, and carry on a "conversation" with them. The delight of MOOs is that not only do they allow synchronous conversation, but they also provide an environment in which the learners can move around, do actions and create objects as well as asynchronous tools, so that users can leave messages for each other if they are not logged on at the same time.

The name itself is an acronym within an acronym. MOO stands for "MUD, Object Oriented". MUD, in turn, stands for "Multi User Dungeon" or, more respectably, "Dimension" or perhaps more logically, as Aarseth (1997) notes, "Discourse". Early MUDs were role-playing adventure spaces — many are still landscapes where participants must gain status according to prowess in the game. As a result of this genesis, MUDs and the later MOOs are primarily *spaces*, or worlds, where the imagination is encouraged. As early as 1990, this aspect of MOO was recognised as being its most important feature (Kort 1990):

> *Network-based virtual realities are now coming of age, largely populated by students seeking an enriched environment for exploration, discovery, and creative expression. Virtual communities emerge with imaginative interactive adventures and puzzles. The science content of such worlds can profitably be enriched by the active participation of the education community.*

Turkle (1998) offers the distinction between game-playing MUDs, where events are programmed to happen as part of the game, and social MUDs, where activity is a result of the participants' "virtual" life. In fact, the boundaries between different genres of MUDs are less clear. Most game-playing MUDs are vital and absorbing because they offer a social community, and most educational and social MUDs and MOOs are vibrant communities because they provide game-playing at a number of different levels. Indeed, not only might there be game-playing in the form of activities, such as an in-MOO treasure hunt, a graffiti wall or a garden that may be added to (as, for example, in SchMOOze), but the discourse apparent in MUDs and MOOs encourages role-play and the creation of what has been called "an open ended theatrical script" (Warshauer 1994). MUDs are not chat arenas. For those teachers who require a simple online chat session, there are plenty of other more appropriate tools available. MUDs are *stages* for interaction and collaboration.

For the language teacher, this means that MOOs are potentially much richer language environments than other text-based synchronous communication facilities on the Internet, where the interaction is more or less limited to conversation and "emote" strategies, such as the use of emoticons like :) (often used in e-mail). A MOO user can express emotion (via the keyboard), design their own room, admire others' room designs and even provide virtual chocolate cake for parties. A MOO conversation is more like acting out a real conversation, and will often include the *context* of that conversation. A participant is able to "smile sympathetically" or "hug warmly" and participate in a conversation in a more natural way. That is, they are not limited to speech, but can use the body language and the "props" they might use in a face-to-face conversation, and thus build up their own stories. The selection of conversation below shows how two students, planning a party for a third, are starting to bring in this "performative" role-play.

```
Natsu [to Saluki]: let's have a Italian and beer party for
Kazu's party. what time will it start?
Saluki asks, "I think we can start the party at 6 pm. Do you
agree with me?"
Natsu [to Saluki]: Saluki, Wkat time will it start Kazu's party?
Saluki says, "Perhaps it would be a good idea to invites Whitney
Houston. She is my best friend"
Saluki says, "I said 6 pm"
Natsu [to Saluki]: I agree with you. And what dress should I
wear?
Saluki imagine about Kazu's birthday
Saluki says, "I think we'd better have a casual clothes"
Saluki changes her clothes
Saluki wear a swim suit
```

Figure 1: A selection of the log from 'The MOO Project'. (Turner & Pohio 1995).

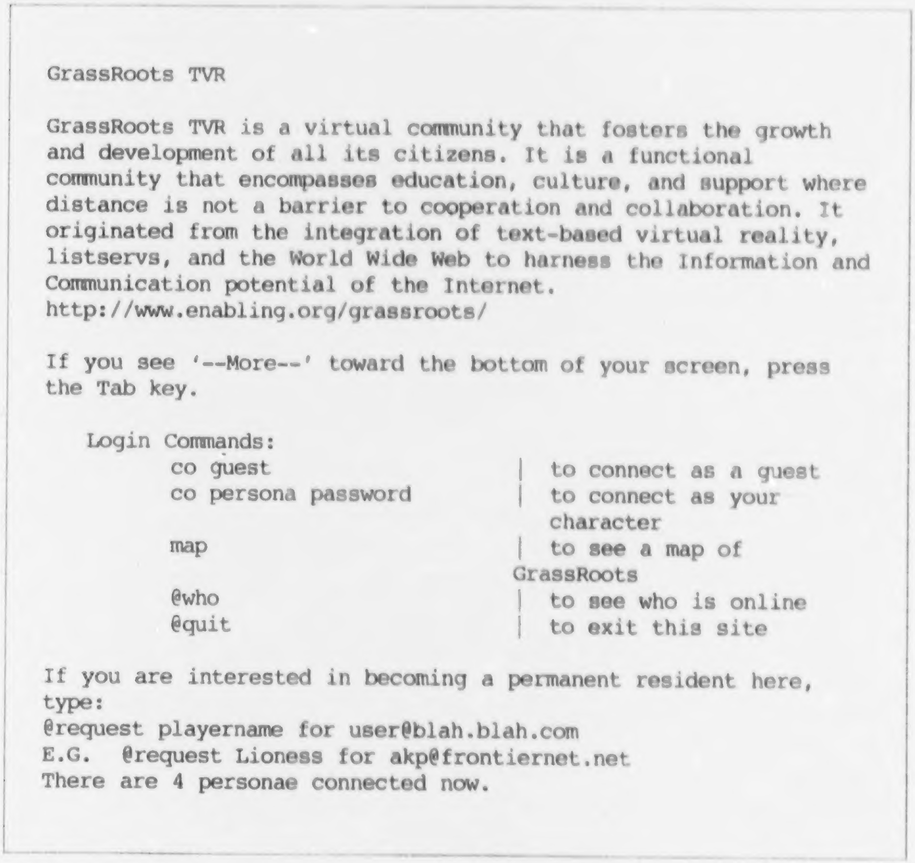
An Internet search for information on MUDs will bring up other variations on the names — MOOs, MUVEs (Multi User Virtual Environments), MUSHes (Multi User Shared Hallucinations), Text-based Virtual Realities. It would seem that these varying names form an attempt to describe something that is not immediately obvious, but can become very special. Mention of "virtual reality" brings to mind the simulated reality of films such as *Lawn Mower Man* or even *The Matrix*. These text-based spaces offer a different kind of free range to the imagination; anything that can be imagined can be written into them. The term "MOO" refers to a development of the MUD-type program that offers a rather easy-to-use internal programming language. For the participant in a MOO, this means that it is particularly easy to add more "spaces" to the environment and to make their own versions of typical MOO objects. For example, a teacher in a high school in South East Queensland is using a MOO for his year 12 technology students as an environment where they can create responsive objects, while a group of ESL teachers involved in a training course using MOO spaces discovered that they could make "virtual pets", or leave messages on tables with problems for their students to solve.

MOOs are "organised around a metaphor of physical place" (Bruckman 1994). That is, they are constructed and designed by their participants to be countries, campuses, even gardens. This text-based illusion of three-dimensional realms given by a MOO also allows users to communicate in small groups, either in the privacy of their own rooms, or as an invited guest in someone else's space. Users can "walk" around various public zones, visiting a cafe and ordering virtual pizza, perhaps, or admiring the ASCII art in an art gallery. Existing as virtual communities on the Internet, MOOs are developed and fashioned by their users. Thus different MOOs have different characteristics and themes, rather like different cafés available in any city centre (Bruckman 1998).

Entering the MOO environment

> *The world within which members of a text-based virtual reality interact is built from words, and it is a world where sentences, words, and letters are the sum total of the "places" people meet, where they tell and listen to stories, create stories in tandem, play, work, and live (for some) significant portions of their lives with friends, colleagues and virtual strangers.* (Kolko 1995)

MOOs are "environments" in a more literal sense than the usual Windows or Macintosh notion, but they are less cumbersome than the stereotypical "virtual reality" of the arcade with its goggles and gloves. They offer *places* to be, to study, to play, as well as to talk in. As will be described in more detail further on, entry to MOO space is via an Internet-linked computer and the keyboard. A participant enters by some form of gateway or portal. Typically, there will be a welcome screen containing information about the type of MOO you are about to enter, how to join in and who to contact for further information or a permanent character.



```
GrassRoots TVR

GrassRoots TVR is a virtual community that fosters the growth
and development of all its citizens. It is a functional
community that encompasses education, culture, and support where
distance is not a barrier to cooperation and collaboration. It
originated from the integration of text-based virtual reality,
listservs, and the World Wide Web to harness the Information and
Communication potential of the Internet.
http://www.enabling.org/grassroots/

If you see '--More--' toward the bottom of your screen, press
the Tab key.

   Login Commands:
          co guest                 | to connect as a guest
          co persona password      | to connect as your
                                     character
          map                      | to see a map of
                                  GrassRoots
          @who                     | to see who is online
          @quit                    | to exit this site

If you are interested in becoming a permanent resident here,
type:
@request playername for user@blah.blah.com
E.G.  @request Lioness for akp@frontiernet.net
There are 4 personae connected now.
```

Figure 2: GrassRoots MOO Welcome Screen, with permission

Once connected or logged in, the MOO participant is immediately asked to don a persona or "character". In many MOOs, this might be provided initially — a form of guest entry lapel badge. In the largest and most popular English language learning MOO, SchMOOze University, even the guest participant is invited to name her/himself and provide some kind of personal description. The following is a description written by a student who named himself "Bug-Talking" during an intermediate language learner's MOO project. Note the way he addresses his teacher (Val) in the text. This description was written in order to be read.

```
*** BUG-TALKING ***

Don't imagine I am very small. In fact, I am a strong man. I
like fishing but most of the time I am very lazy, idle all day
and unwilling to make anything except make tea. Yes. Only tea, I
like tea so much. I would die without it. Sometimes I like
reading. Please remember just 'sometimes'. Aha! Don't be
nervous, Val. Just kidding. I really like reading, because that
will help me develop my English quickly. (Now you can relax, my
dear Val). I like discovery. Usually I spend a lot of time
discovering second-hand goods everywhere, if they are worth
investing in. I think it's very interesting.
```

Figure 3: Intermediate ESL student's personal MOO description

Once logged in and announced, the participant is within a world of words, built to be enjoyed and to create a mood like a book. Generally speaking, most of these worlds offer some kind of entry portal or quiet space where new participants are able to get to grips with basic commands and the themes of the environment.

Where a book invites the reader to turn the pages, entry to text-based virtual reality invites the reader to explore exits — entrances to new "room"' or described spaces.

```
Welcome to eMU

You are standing in a park. You can see a creek running along
the west side of the park. You can see the gums trees moving in
the gentle wind. You can see a gate to the east. You can follow
the path to the south to get to DEAF TOWN

Obvious exits: [south] to Deaf Town
```

Figure 4: The primary entrance to eMU — an early experimental MOO for the deaf

The description in Figure 4 was taken from an experimental MOO for a group of deaf English as a Second Language learners. The entrance was therefore designed with simplicity in mind, as the deaf participants found "written noise" as loud and distracting as a hearing person might find party noise! The nature of the environment is defined by its owners and builders. The game-playing MUDs/MOOs often offer Tolkeinesque landscapes, or perhaps more familiar media images of Star Trek type scenes. Many social MOOs are also generated by a literary theme, such as the Anne McCaffrey *Pern* series (SouCon MUSH: http://www.soucon.godlike.com/), or Amy Bruckman's MOOse Crossing, a constructive MOO environment for children which offers a Harry Potter realm. Others are visions of future cities such as the *Chiba MOO*. The largest and the original MOO space, Pavel Curtis' *Lambda MOO* is based on the original builder's home, but has grown and been developed by many different participants to *Gormenghast*-like proportions.

Many educational MOOs offer classroom spaces, libraries, even student union buildings complete with cafés where virtual food may be ordered from a catering robot. Other MOO builders have opted for open-ended landscapes where creativity does not need to fit in with a theme.

Once inside a MOO, the participant is generally invited to explore the public areas and interact with other users. These actions are, again, achieved via keyboard text commands. Each time a user enters a different space, a description of place is offered and new entrances and exits given. This means that a MOO participant needs a basic control of MOO commands in order to be able to interact both with other users and with the MOO space itself. Like the earlier games upon which they are based, there is a short list of simple commands for a beginner or "newbie" to learn (see Figure 5).

Once a participant has mastered basic navigation of MOO spaces, there are many more commands that enable further design of "characters" or basic room building, right up to quite advanced creation of new responsive objects, such as a wind-up toy duck (for The WorldMOO Toy Duck Programming Tutorial see http://www.jesus.ox.ac.uk/~jireland/MOODuck.html)!

While these commands do involve a slight learning curve, they offer the versatility necessary to make the most of an environment that offers great scope for the imagination. It has been our personal experience, too, that even the most elementary of language learners within a MOO space has quickly become adept at using the basic commands as soon as s/he realises the communication and community potential.

A real delight of MOO spaces is that it is very easy to create things within them, as all creation is via writing. Most of us start by designing a "room" or corner, to call home. This generally requires membership of the chosen MOO. Like different social

Command	Effect
■ connect XXXX	the standard connection command
■ say XXXX or "	used to "speak" to other users
■ look	shows you the MOOspace you are in
■ look XXXX	shows you other users' descriptions
■ read XXXX	enables you to read 'notes' and messages around the MOO.
■ page	enables you to send a message to a user who is not in the same zone as yourself
■ emote or :	enables you to 'act'
■ @who	shows you who (else) is logged into the MOO and where they are
■ @quit	takes you out of the MOO

Figure 5: Basic MOO commands for beginners.

clubs in real life, MOO membership tends to require that the participant has visited as a guest and become accustomed to the basic commands and theme of the MOO and wishes to "MOOve in".

Once a MOO participant has her/his own room, s/he has created a stable space in which to entertain friends, hold meetings or explore further the creative possibilities of these text-based worlds. For an educator, this creative use of MOO space is an opportunity to explore and encourage all sorts of creative writing, collaboration and construction amongst their students.

> Y pages, "I still remember the moment I first visited the virtual Kibbutz, I could actually feel the scent from all those picturesque but yet objective descriptions."

Figure 6: Logged comment from a teacher in SchMOOze with permission.

The following figure shows a student room description from an ESL MOO project. This room was designed by the two students "living" there as their own personal space. They collaborated on the description offline and then built it into the MOO.

```
Ghost Room

It is modern and simple. It has two beds. On the left side is
Tetsu's bed and on the right side is Olly's bed. A modern
technology multi system television which has a teletex system is
in the left corner at the back of the room and a red big sofa is
in front of the television. It has blue carpet on the floor.
There are two wooden desks and chairs between our beds. A stereo
set is in the left corner at the front of the room beside
Tetsu's bed. An air conditioner is in the middle of the front
wall. There is a book shelf in the right corner at the back of
the room. There are two windows on the left side of the room.
There is a door on the right side of the room near the book
shelf.
```

Figure 7: Learners' description of the "Ghost Room"

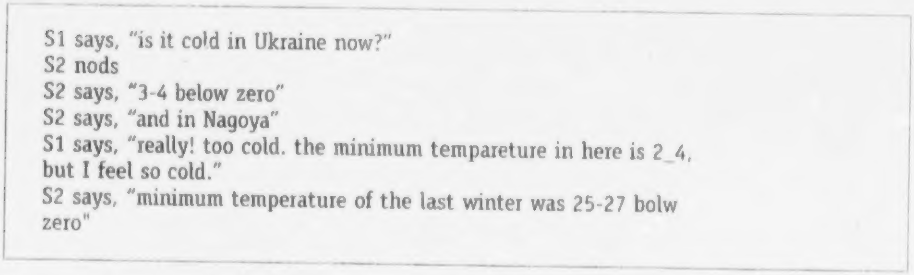
Using MOOs for language learning: integrating use of MOO spaces into the classroom as a rehearsal space

The stories told here tend to focus on the experience of learners of English as a Second Language. Readers working in a language other than English need only translate into their own terms. When we first started working in MOO spaces, we wanted to use them as practice spaces for low level learners. This meant our first consideration was the problem that many L2 learners expressed at that time — how to teach the class the basic skills necessary to use the MOO, without teaching information and communication technology *per se*. And, of course, as in most language learning situations, learners had to achieve a certain number of language learning goals within their class time. In order to accomplish this, and to ensure that learners saw the work they were doing as an essential part of their language course, we integrated the use of the MOO step by step, over a number of weeks. The curriculum fitted in with the steps quite neatly. For example, the initial classes were used to set the scene and related to work on personal descriptions and adjectives in the curriculum at the time.

In order to minimise the pressure on learners to cope with writing descriptions and, simultaneously, to acclimatise to the technology, they had already prepared a personal description by the time they were shown how to enter the MOO, and were asked to name and describe themselves. It should be noted that these were not supposed to be realistic personal descriptions, although some were. Other learners' descriptions were of the people they *wanted* to be rather than of the people they were, but it provided rich opportunities for writing and grammar practice, both within and outside of the MOO.

Once this initial stage was passed, the same group was encouraged to practise question forms, in order to find out about the other participants in the MOO space, some of whom were classmates while others were "MOOtizens"from other countries and cultures.

The excitement generated by this meeting of an "authentic audience" was quite powerful. All too often, practice in the language classroom can take the form of rote repetition rather than of genuine communication, no matter how cleverly we set up the activities. It is difficult to "suspend disbelief" in a classroom setting. In MOO space, however, what could, in the face-to-face classroom, be a mundane question about the weather, may develop into a motivating and interesting or educational discussion.



```
S1 says, "is it cold in Ukraine now?"
S2 nods
S2 says, "3-4 below zero"
S2 says, "and in Nagoya"
S1 says, "really! too cold. the minimum tempareture in here is 2_4,
but I feel so cold."
S2 says, "minimum temperature of the last winter was 25-27 bolw
zero"
```

Figure 8: Learners discussing the weather in their respective real life locations. (logged during the Collaborative MOO project by Shield et al)

The integrated MOO project continued with further work that exploited the virtual spaces of the MOO itself. Learners were encouraged to acquire a further set of MOO commands in order to navigate and explore the written descriptions — the world — of the particular MOO being used. The group was sent on a virtual treasure hunt which involved reading the description of each space they progressed to within the MOO, and finally meeting up in a virtual cafeteria to chat.

A further session took them to the role-playing level where they were encouraged to explore the use of question forms, and to role-play further by means of that old party game where questions are asked to ascertain the assumed identity of the player.

The process of integrating use of the MOO space into the classroom curriculum continued over the course of the term. Other aspects explored in the MOO included organising and giving a party for one of the students' birthdays, and getting the group to design and build their own rooms within the MOO.

We decided that the group should share rooms in order to establish a collaborative writing exercise where working together was as important as writing the description or designing the space. The activity also fitted in with revision of prepositions of place as is evident from Saluki and Marine's rather romantic description:

SALUKI AND MARINE'S ROMANTIC PARADISE

It is a big and romantic room. It has two queen size beds on either side of the room. It has pink pillows and pink blankets. There are two desk lamps on the desk on either side of the bed. A very big mirror is between the beds. In front of the mirror there is a stereo and a karaoke player. It has one big wooden door opposite the mirror. The other two doors are on either side of the room between laser disc and refrigerators. There is a big tiled square pool in the left corner beside the big wooden door. It has many pink lights around the pool. In the right corner beside the door there is a coke dispenser. In the middle of the room there is a round pink rug. A round wooden table and the soft pink sofa are in the middle of the rug. It has two big television and videos on either side of the rug. The room has soft lights hanging from the ceiling. There are six big French windows and pink curtains around the room. It has pink carpet on the floor and a lot of flowers everywhere.

Fig 8: Saluki and Marine's room description (ESL MOO Project)

As the term finished, some of the students moved on to other classes but some stayed on as MOOtizens, learning more about how to create within the environment and making friends with other MOO users outside the class. As teachers, we looked at their proficiency in the environment and realised that we had given them a "bigger place to play".

Some MOOs are set up and designed as educational establishments in order to hold meetings and create a scholarly atmosphere. Indeed such spaces are ideal for online courses and online course delivery. Such is the versatility of building in object-oriented text spaces that they have been used to give PhD defences in a carefully orchestrated MOO space (Grigar 1998), complete with recording potential and display facilities. We have used MOO space on other more formal occasions, such as training courses for teachers, and online opportunities for invited guests to join conferences (see http://www.fed.qut.edu.au/tesol/cmc/barcelona/ for the Barcelona MOO Based Guest Event). However, this aspect of MOO use assumes that there is no real life classroom or meeting place. Where there are groups coming in from an established classroom environment, it seems a terrible waste of an opportunity simply to attempt to recreate the necessary strictures of that space (Fanderclai 1995). After the successes of early ESL MOO projects, where the main aim was to introduce learners to an environment where they could communicate in real time and gain confidence, we wanted to continue our own exploration of these spaces with learners, but were wary of any task that might limit their freedom within the virtual environment. This is, we believe, where the nature of building in MOOs becomes a truly creative language learning resource. This led us into other, more constructive projects that were more focused on exploiting the use of text-based virtual realities as realms which might enhance and enrich other classroom activities.

This paper defines two main forms that such projects might take. The first is one where the MOO space is used as a play-space or creativity workshop — a bigger place to play. Like school playgrounds or a lunch break at work, such room to be creative is an essential part of the creative (or learning) process, but it is not within the learning environment. The second form or approach to projects is where the MOO is used to develop a *place* in cyberspace. This place is the equivalent of bringing in some photos to an office in order to make it more homelike, or sticking pictures from school on the fridge for everyone to see.

Using MOOs for language learning: MOOs as "bigger places to play"

> *We would enter the story, and the plot would change according to our actions while still sustaining its power to surprise and delight us. What would such stories be like? (Murray 1997:63).*

A major dilemma for the teacher with a curriculum to adhere to when using text-based environments, is that the nature of the environment itself encourages a sense of freedom. This aspect has been noted by teachers, time and time again, as they watch their students leap into enthusiastic conversation and creativity, the open-ended theatrical script, and leave the restrictions of the classroom behind (Turner 1995). This freedom provides a strong argument in favour of using such spaces. However, for the teacher with curriculum goals, it means that the task given to students needs to be designed to include this glorious anarchy.

In order to exploit the theatrical nature of MOO spaces and the rich discourse encouraged by the environment, a project called *The Walk on the ICE* was designed, with the use of Connections MOO, in the English Language Programs at the Queensland University of Technology. This project involved the learners in creating fictitious characters, building a virtual village in MOO space, and playing out the roles they imagined their characters might encounter in the course of village life. The MOO was used as a rehearsal space for the main language learning goal of creative writing work. As a general rule, these enactments in MOO space were not logged or recorded but were viewed as the actors' play time. After their MOO adventures in the personae of their characters, the learners were then invited to write up the stories as narrative texts. These were then posted on *The Village* Web site for others to read and join in the plot, if they so desired. *The Walk on the ICE* in the form described here, took a typical English language course session of twelve weeks. During that time, we involved two different classes of learners and a group of upper primary school students. In terms of language work (both ESL and mainstream), it was felt that the project satisfyingly covered a range of desired skills within the set curriculum. The players (no longer "learners" but "players" or agents, as suggested in Warschauer 2000) were given situations where they had to discuss and collaborate with each other in order to construct an identity and an environment. This was the process by which they reached the required goal of creative writing. It enabled the variety of learners to concentrate on their individual forte. Stronger visually-oriented learners focused on the use of images as part of the process, drawing both characters and maps which were posted as part of the Web site. Some focused on the written descriptions, others on the role-play and the speaking. The plots were sketchily drawn up by collaborative groups, but only came into existence as a result of the totality of each player's involvement.

> *MUDs make text interactive, spontaneous, and collaborative; writers cobble together a collective hallucination (the rooms, object, and characters), breed narratives of love and war, and jam like improv poets with their chat.*
>
> *(Davis 1994)*

In *The Walk on the ICE*, the writing process gets turned into a stage show where the audience are themselves the writers and the readers. In terms of our original goal, we were pleased to see a whole new realm of potential open up for the use of MOO spaces — and, in particular, one that actually exploited the chaotic nature of the domain and encouraged the kind of freedom that we had so enjoyed offering players in earlier projects. Some of the more intricate stories got lost in the rehearsal stage and were never written up. We will never find out about Gwendolin now — like a true television soap opera character, she disappeared, written out of the script. Later, perhaps, she may come out of the storeroom *(Crossroads)* or we may have a character waking up and realising that the whole of the past year has been a dream *(Dallas)*.

Using MOOs for language learning: the virtual fridge door

> *The architecture of that virtual space doesn't* frame *the conversation — it's a central component of it. We're used to communicating with our friends and family by sending them snapshots or sketches or tape mixes, but in the future we will reach out to those around us by sharing virtual environments.*
>
> *(Johnson 1997)*

Many of our students come from a strong teacher-led educational background, and find that the notion of collaboration can seem quite "foreign". The privacy apparent in text-based spaces might make this transition easier for them. The teacher can, in effect "leave the room". If a group using MOO spaces have been given a collaborative task, the nature of the actual conversation is less important than the results. As we discovered in *The Walk on the ICE*, a lot of chaos and freedom in MOO space generated the imagination necessary for the creative writing work outside the space.

Others (Schwienhorst 1998; Shield et al 1999) have adopted a different emphasis, with the collaboration within MOO space generating constructive work within the space itself, and the shared success of creating what is, in effect, a community of learners — or, indeed, of teachers — working together. While the emphasis is on language learners, it is personal experience that the same principles hold true for teachers and indeed other learners with non-language specific goals (see the *Solar System* in GrassRoots MOO for ideas about a Year 7 science project, or *Charles Dickens' World* for an English literature approach).

This community aspect is further enhanced by the "publishing" aspect of MOO space. The versatility and accessibility of MOO spaces has inspired many other language learning projects based on collaborative principles. A visit to *SchMOOze University* offers an educator the opportunity to join the "Cultural Centre". This is a project mainly organised as an opportunity for both classes and individual students to add something about their own countries to display to other MOO visitors and MOOtizens. The two teachers involved, along with the MOO owners, have set up an area within the MOO where the participant can enter and read users' descriptions of different countries, complete with the appropriate atmosphere. The writing is often very evocative, as demonstrated by the extract below. This was a "writing for fluency" exercise and was corrected by a language teacher for glaring errors, but left as intact as possible. The student's tone was important here, not the grammatical accuracy.

```
Fraser island

As you know, Fraser island is the most biggest sand island in
the world. When you go there, you can see transparent Pacific
ocean and the wild bush which people have never broken, and also
you can touch very smooth sand. The ocean is so transparent that
sometimes you can't realize whether there is water or not. You
must be surprised when you realize it and also you must be
surprised when you see the wreck on the beach. I don't know how
old it is, but it has been really damaged. To my surprise, the
wreck still keeps its shape instead of its damage. The bush is
quite amazing because there are many big trees and plants that
have never touched by people. When you see it, you can be moved
because of the real nature. The sand is also quite amazing
because it is really smooth. After you touch the sand, nothing
leave on your hands. It means the sand is really smooth. I have
never touch such smooth sand in my whole life. At last, the sky
is quite high and blue. There are no clouds in the sky. Fraser
island is the best place in Brisbane for me.
```

Figure 9: MOO description of Fraser Island written for the Cultural Centre in SchMOOze by an intermediate level learner of English

Many language teachers are using the publishing opportunities provided by the World Wide Web for a similar purpose. A difference within MOO space is that the writers themselves can easily add or change the work so "published", without having to access a server to do so. The descriptions are often more literary than many found on the Web, as they rely entirely upon the written language, perhaps supported by some ASCII graphics (pictures made of keyboard symbols). The authors can invite other people *into* the space they have written and designed. A collaborative project can be discussed by the participants and constructed as they discuss — even if the collaborators occupy different time zones. For example, a project designed by Lesley Shield and Markus Weininger (Shield et al 2000) goes this step further and involves collaboration *across* cultural and time zones with distance learning in mind.

Evaluation and Discussion: using MOO spaces for Communication, Collaboration and Creation.

> *But it's these threads that leave my head spinning and my heart racing, the gliding over the surface of a new topic at thrilling speeds and plunging in occasionally, connecting with others in a frenzied shouting match in a virtual room to the point of exhaustion, then getting up from my chair, looking around, and realizing that I'm the only one home.* *(Rickly 1995)*

Communication

When conversing in real time via the keyboard, one is always aware of typing speed. While the mind may be capable of quick expression, the fingers may not! Indeed, our first impression of MOO use in the classroom was that it certainly assisted students with motivating keyboard practice. There is an awareness of a person waiting on the other side of the screen who may not be aware of the reason for the delay. Shield et al (1999) list this keyboard skill development as a major function of MOO use. As the need for technological literacy becomes more and more important in the sphere of education and in the workplace, the keyboard is often the primary method of input and the ability to keyboard at reasonable speed becomes more crucial. The medium of synchronous communication has effectively developed an "argot" or slang, as have many other shared discourse communities, such as lawyers, surfers, and even language teachers. This discourse community can produce barriers for the newbie entering such spaces, but is assimilated in much the same manner as the new player becomes aware of others' language use. For the language specialist, this is fascinating to watch as it means the students are not only reading other participants' words, but also acquiring the cultural discourse prevalent in the medium, driven perhaps by the same "need for speed". They are communicating effectively. The textual nature of MOO interaction, and the privacy it provides, can be seen as offering a safe way of practising English. However, there is always another side. As Groves (1997) reports, it could be claimed that, "he who types fastest, shouts loudest". A recent article in *High Wired* magazine perhaps sums up the situation. The author notes that it is not so much that users of network communications are more honest or less shy, but that they are more expressive in their communication via the keyboard. This is an ideal situation for the writer and for writing exploration.

Because of the sense of community generated by such established spaces, use of MOO spaces provides an opportunity for learners to make friends with native speakers of the target language, which in turn becomes a motivational factor in their learning. However, for the language teacher who wishes to explore and experiment with MOO spaces, this requires that s/he recognise that such spaces are not necessarily appropriate for practice in conversational *accuracy*, but that they do provide an environment for conversational *fluency* and a rehearsal space for situations and meetings that they might well encounter in real life. This paper takes a tools-for-the-job approach, and there are many other more appropriate technologies available for accuracy practice, so whether or not this rehearsal space actually improves the quality of the participant's second language is not as important as providing them with an opportunity to explore and play in that language. That said, unlike face-to-face speech, conversations that take place within a MOO may be "logged" or recorded and read through by student and teacher as a "reflective learning opportunity" (Shield et al 1999) after the conversation is over.

This notion of rehearsal space is further supported by the privacy of the synchronous text-based medium (on privacy and anonymity see *Bruckman: The Turing Game*, http://www.cc.gatech.edu/elc/turing/). It is curious to note that even when the participants in a MOO event are all sitting within the same computer lab in real life, it is not unusual for the individual learners to suspend disbelief and assume that they don't actually know (in real life) who they are talking to. I have often seen learners cross-examine a conversational partner for clues to her/his identity even if they have all been logged in together and the partner has already intimated that they are part of the class! They will then physically walk over to the colleague's computer to check that they are who they claim they are. This privacy, the lack of social context clues such as dress, demeanour, and gender, and of physical context clues such as age, mean that the "speaker" is effectively free of many of the face-to-face pressures that exist in real life conversation. Of course, this freedom from such clues is a two-edged sword, and the participant must meet with their interlocutor on the same terms. This requires that their writing be their communication and seems to encourage what Kolko (1995) has termed the *creation* of belief. MOO-based conversations, placed as they are within a text-based theatrical stage, interweave conversation with action.

For language teachers using MOO space, while this playfulness can be exploited as a language opportunity, there are other interesting side effects. MOO users are encouraged to craft a name for themselves and to fill it out with a description for others to view. One of the MOO worksheets for the ESL MOO project demanded that learners enter the MOO, use a name other than their own, and then ask questions to establish each other's identity. "Crab", a very quiet, shy Japanese girl, became a handsome, kind footballer with a multitude of girlfriends; "Ken" wanted to find a girlfriend who would be a close friend and share his sadness and happiness; "Thanh" walks alone at midnight; "Bug-Talking" made a subtle indication that the reading homework being dished out in class was a bit too much! These flights of fantasy often provide the teacher with insights into learners' feelings that may not be voiced in a real life class. It has been noted (Warschauer 1994) that use of networked learning might encourage shy learners to use their language skills in a face-to-face conversation. One teacher writing about his MOO experiences mentions that one of his students spoke to him for the first time from within the safety and anonymity of the MOO (Guest 1995). This phenomenon has been reported before (Chun 1994) and perhaps merits further exploration. Of our students, "Crab" in particular, seemed to benefit from this. Her previous work had been pretty well restricted to writing, but suddenly she was actively discussing the sessions in class. Crab was a little tougher and more outspoken than his puppeteer, and perhaps this space to *rehearse* did give his originator more confidence. We do not suggest that this was some sort of miracle directly attributable to MOO use, but we do think the stimulus helped tremendously and gave the group a focus. It certainly seemed to us that the group exploring MOO space became more confident in their natural classroom speech as a result of their experience within the MOO.

Crab

My name is Crab. I'm a handsome, smart, kind, honest guy! I'm tall. I'm intelligent. I'm a student at QUT. I like sports very much and I play football very well! Anyway I have a strong, brave body. I'm popular with all the young, pretty girls in this town!! Of course I have many cute and beautiful girlfriends. I'll get married with someone who is the most beautiful of all =. In the future I want to be a movie star like 'Arnie', then I will get a lot of money and a magnificent house with a nice sports car like a 'Porche', many servants and a big beautiful tiled swimming pool!!

Figure 10: "Crab's" description

Collaboration

For a community MOO, as many of the language-specialised MOOs are, the life of a MOO is often the feeling of being in a busy environment with many people all talking at once, as it is in a real life café or public meeting place. Because the interaction is textual and without spatial clues, a newcomer may initially be bewildered by the richness of the text streaming past on the screen. This is where the object-oriented "world" nature of MOO space really comes into its own.

As might be gathered, setting up a simple "speaking" or communication task in MOO spaces might be rewarding, but does not exploit the richness of the environment. There seems to be little point in telling a group of language learners to go and have a conversation about, say, the weather, as we might if we were setting up a classroom accuracy practice role-play. Why not use the anarchy of the MOO to let the students discuss their own tasks and then use the space as a publishing space to display their work? Davies et al (1998) have described a useful philosophy for teaching in MOO spaces as "3CO": COllaboration, COnstruction and COmmunity. This approach neatly covers the range of current educational beliefs that fit together beautifully in the text-based landscapes of MOOs. Collaboration involves students in working together and communicating for a purpose. Construction defines their environment, their context and gives them the opportunity to learn by doing and creating. And Community is the group they work both with and for.

We continuously seek "authentic audience" when using the Internet with our learners (Warschauer 2000). A real audience is one that can respond to the communication taking place. What could be more authentic than adding a corner to a living environment? Much the same has been said about the World Wide Web and its hypertext landscape. Shneiderman (1998) uses the expression "relate-create-donate" to express this feeling behind his collaborative Web work with groups of students. Put simply, the students work together (relate) in order to make (create) Web-based documents and projects which are then offered (donate) to an authentic audience of their peers and beyond. A particular freedom in taking this approach to student's work in MOO spaces is that student control and access to Web publishing in many institutions needs to be via a technical resource person, or possibly a complex and expensive setting up of individual accounts and mapped spaces. In contrast to this, once a student is a member of a MOO and they have been allocated a space to build in, revisions and changes can be done swiftly without recourse to network administration. The students are in control of the "means of production".

Creation

> *The more realized the immersive environment, the more active we want to be within it. When things we do bring tangible results, we experience the second characteristic of electronic environments — the sense of agency: agency is the satisfying power to take meaningful action and see the results of our decisions and choices.* (Murray 1997:126)

This control of the means of production is a community effort. It is part of the theatre of MOO spaces. Each player contributes to the atmosphere of the whole. Warschauer (2000) explores this as a concept of *agency*. Agency might be defined as the power to take action. Warschauer (2000) cites Kramsch et al (in press) when he describes agency as "the power to construct a representation of reality, a writing of history, and to impose reception of it by others". In MOO space, Kolko (1995) notes that this power is expressed through writing and the theatrical discourse produced, and is a powerful representation of the power and potential of the written word in the real world. Perhaps more importantly for us as teachers, MOO spaces are, for their members, real places. This involves the players acting within communities that they have an interest in remaining a part of — much as one might enjoy the community produced by attending a yoga class for example. In the same manner, MOO "builders" are part of a group that has an interest in the continuation of the persona of the community. This is more akin to Murray's (1997) description of agency. This is a feeling of not only belonging but also being *relevant*. Murray discusses agency from a perspective of the player becoming part of the story. Not merely watching or sitting within the action but, like the satisfactions of game spaces, being able to affect the action as one would in the real world. Activity alone is not agency — joining in a MOO community, creating it, and extending its borders, might be.

There are many more success stories of these approaches than are recounted here. We hope that this piece will inspire the reader. As with any project, it can be time-consuming to set up and run a collaborative MOO-based project. However, it is very likely that where such projects take place within MOO spaces, the educators themselves will find the same rewards that they are seeking for their learners as they investigate, and take advantage of, the unique possibilities of these text-based virtual worlds.

How to use MOO spaces: Entering MOO spaces — basic information & clients

A delight in using MOO Space is that there is more than one way to enter. It is possible to enter any MOO by using raw TELNET. If you are running Windows, this is part of your environment. Go to the "start" menu and choose "run". Type "telnet" and you should be offered the most basic of programs. In the Mac environment, NCSA TELNET is a similar crude option. The "port" part of the address is important when using MOOs.

However, it is much more convenient to use a client program. Generally speaking, a client will separate the screen text from the input text, and lessen the visual density of the text. There are a variety of these available for free. We recommend installing PUEBLO for Windows and NT and MUDDweller for the Mac.

PUEBLO is freely available from http://www.chaco.com

MUDDweller is available from http://moo.hawaii.edu/athemoo/MUDDweller21.sit

Other available Mac clients: http://www.pure-mac.com/mud.html

Other available Windows clients: ftp://papa.indstate.edu/winsock-l/mud/

UNIX/LINUX client: http://www.andreasen.org/mcl/index.shtml

And other operating systems: http://tales.ccs.yorku.ca/mush/connect/client.html

A number of MOOs offer Web-based access via a Java client window. It is always wise to check out the MOO home page to see if such options are available. In particular, the EnCore Express interface is very user friendly. It is also fairly simple to use EnCore in order to run your own MOO:

High Wired EnCore Home Page: http://lingua.utdallas.edu/encore/

Some Educational MOOs

These are just a few examples. It is always wiser to investigate the theme of the MOO and explore before deciding to use one with students.

General K-12 MOOs

EdMOO Web Interface: http://edx5.educ.monash.edu.au:7000/

MOOse Crossing Web page: http://www.cc.gatech.edu/elc/moose-crossing/

ESL/EFL

SchMOOze University: telnet://schmooze.hunter.cuny.edu:8888

Web Address: http://schmooze.hunter.cuny.edu:8888/

Spanish

Mundo Hispano: telnet://admiral.umsl.edu:8888

French

MOO Français: telnet://admiral.umsl.edu:7777

Le MOOlin Rouge: telnet://cmc.uib.no:9000

German

Dreistadt: telnet://cmc.uib.no:8888

Community support & education

GrassRoots: telnet://moo.enabling.org:8888

Web address: http://:www.enabling.org/GrassRoots/

Education and research

Diversity University: telnet://moo.du.org:8888

Web address: http://www.du.org/

Connections MOO: telnet://moo.mud.org:3333

Web address: http://web.nwe.ufl.edu/~tari/connections/index.html

Lingua MOO: http://lingua.utdallas.edu:7000/

Web address: http://lingua.utdallas.edu/

Theatre exploration MOOs
ATHEMOO: http://moo.hawaii.edu/athemoo/

Firewalls:
Some networks, particularly educational institutions, automatically firewall-out the higher port addresses that MOOs use. Check out the MOO Web page you are interested in, and ask for only the particular port it uses to be opened.

General information and further resources:
The eMU Papers: http://www.fed.qut.edu.au/tesol/cmc/emu/

Acknowledgements

The author wishes to thank the other members of the MOO group and many players and wizards in the Mooniverse, especially Lesley Shield who wields a mighty red pen, Tari Fanderclai (Connections MOO), Dicken Wanderer of GrassRoots MOO for his unfailing kindness, patience and support as we explored these projects, and Mehitabel whose dedication has kept Schmooze running as a home for many of us for years. Without their friendship and support none of these insights would ever have happened. Parts of this work have appeared in other forms and parts are case studies from ongoing research.

Biodata

truna aka j.turner is a lecturer in Technology, Language and Literacy in the Faculty of Education and the School of Communication Design at the Queensland University of Technology, Brisbane, Australia. She works with issues of digital literacy with pre- service and in-service educators, concentrating on a critical approach to interface literacy and use of virtual spaces. She has worked with technology and language for the last two decades, in a number of countries including Spain and South America and, if pressed, admits to a background in AI. Her current research is focused on the navigation of digital architecture as a literacy.

References

Aarseth, E. (1997) *Cybertext: Perspectives on Ergodic Literature*, Baltimore & London, John Hopkins University Press.

Bruckman, A. (1994) *Programming For Fun: Muds As A Context For Collaborative Learning*, presented at the National Educational Computing Conference in Boston, MA, June 1994.

Bruckman, A. (1998) "Finding one's own in cyberspace", in Haynes, C. H. Jnr., *High Wired: On the Design, Use, and Theory of Educational MOOs*, The University of Michigan Press: 15-24.

Chun, D. M. (1994) "Using Computer Networking to Facilitate the Acquisition of Interactive Competence", *System* 22(1): 17-31.

Davies, L. B., Shield, L. & Weininger, M.J. (1998) "Godzilla can MOO, can you? MOOs for construction, collaboration and community and research", *The Language Teacher*.

Davis, E. (1994) "It's a MUD, MUD, MUD, MUD World", *Village Voice:* 42-43.

Fanderclai, T. L. (1995) "MUDs in education: New environments, new pedagogies", *Computer Mediated Communication Magazine* 2(1): 8.

Grigar, D. B., J. F. (1998) "Defending your life in MOOspace: A report from the electronic edge", in Haynes, C. H. Jnr., *High Wired: On the Design, Use, and Theory of Educational MOOs*, The University of Michigan Press: 192-231.

Groves, P. (1997) *MUDs, MOOs, WOOs and IRC*.

Guest (1995) "An interview with a cat", *Learner to Learner: A Forum for Learners of Japanese and Other Languages* 3(3).

Haynes, C. & Holmevik., J.R., Eds. (1998) *High Wired: On the Design, Use and Theory of Educational MOOs*, University of Michigan Press.

Johnson, S. (1997) *Interface Culture: How New Technology Transforms the Way We Create and Communicate*, HarperEdge.

Kolko, B. (1995) "Building a world of words: The narrative reality of virtual communities", Workdays.

Kort, B. (1990) "Virtual realities, virtual communities, and informal science education", BBN Labs.

Kramsch, C., A'Ness, F., & Lam, E. (in press) "Authenticity and authorship in the computer-mediated acquisition of L2 literacy", *Language Learning & Technology* (cited in Warschauer, 2000)

Murray, J. (1997) *Hamlet on the Holodeck: The Future of Narrative in Cyberspace.* New York: The Free Press.

Rickly, R. (1995) "It's fun to have fun but you have to know how! or, How cavorting on the Net will save the academy", *CMC Magazine* 2(1): 11.

Shneiderman, B. (1998) "Relate-Create-Donate: A teaching/learning philosophy for the cyber-generation", *Computers & Education* 31, 1 25-39, [Online] <ftp://ftp.cs.umd.edu/pub/hcil/Reports-Abstracts-Bibliography/97-17html/97-17.html>

Schwienhorst, K. (1998) "Teacher autonomy in MOOs — supporting language teaching in collaborative virtual environments," *Journal of Information Technology for Teacher Education* 8(2): 199–214.

Shield, L., Weininger, M. & Davies, L. B. (1999) "A task-based approach to using MOO for collaborative language learning", *CALL & the Learning Community*. K. Cameron, Exeter, Elm Bank Publications.

Shield, L., Davies, L.B. & Weininger, M.J. (2000) "Fostering (pro)active language learning through MOO", *ReCALL*(12).

Turkle, S. (1998) "Foreword: All MOOs are educational — the experience of 'walking through the self' ", in Haynes, C. H. Jnr., *High Wired: On the Design, Use, and Theory of Educational MOOs.*, The University of Michigan Press: ix -xix.

Turner, J. & Pohio, V. (1995) *Using Text-Based Virtual Reality in the Classroom — A Narrative*, 8th Annual ELICOS Association Conference, Perth, Australia. [Online} http://www.fed.qut.edu.au/tesol/cmc/emu/moopaper.html

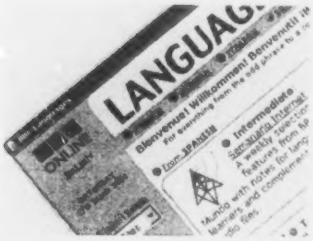
Warschauer, M., Turbee, L. & Roberts, B. (1994) "Computer learning networks and student empowerment", *NFLRC Research Notes 10.*

Warschauer, M. (2000) *The Death of Cyberspace and the Rebirth of CALL*, IATEFL & ESADE:Call for the 21st Century, Barcelona.

Warshauer, S. (1994) "Aesthetic approaches to the design and study of MUDs (Multi-User Domains) in English and performance Studies: Interface, realism and the dialectic of interacting", *Computer Writing, Rhetoric and Literature* 1(1).

Part 2

Practice: *Virtual Language Learning* Revisited


LANGUAG
ONLINE
Bienvenue! Willkommen! Benvenuti!
Intermediate

InterDeutsch

BEST COPY AVAILABLE

Developments since 1998

It is striking how quickly Web-based language learning has developed since the publication of *Virtual Language Learning*. Two years ago, languages were pioneers and excellent sites were difficult to find. Now the Web has taken off in a variety of directions and many more sites are available. One reason for this is the speed with which the Web enables new ideas to be disseminated. This is very noticeable, for example, in the spread of task-based Web activities with access to authentic sites, along with a shift from work on paper to on-screen forms that can be submitted electronically. Another reason for the growth is the ease with which Web pages can be created by piggybacking on the work of others. In other contexts, this might be regarded as plagiarism or theft of intellectual property, but in the online world it is still seen as collaboration, or the grateful exploitation of the generosity of others. The ability to link easily to existing sites means that there is some tendency not to redo what has already been done. However, despite the appearance of sites that provide free templates for quizzes and encourage users to post their work back for others to use, we are still a long way from any worldwide collaborative pooling of talent and time.

While improvements have not been uniform, they have been achieved largely by way of better technologies that have led, among other things, to better presentation. This is notable in the case of graphics and sound, even if the Web still cannot match the reliable quality offered by CD-ROM. Striking advances that were making their appearance as the book was going to press were Voice Chat and Voice Bulletin Boards. These are likely to be taken up rapidly to fill the greatest perceived gap in Web-based learning. Technological advance, however, is not always an unmixed blessing; while we are still waiting for the long promised broadband services to become widely available, sites using the latest developments in graphics can take a wearying time to download over a 56K modem. There are other problems online, too — some plug-ins do not work in every context, and some sites are available only to Internet Explorer or Netscape, while others cater for Windows but not Macintosh. The Web's ideal of universal standards is not always achieved.

A noticeable and interesting development is the spread of commercialisation even in sites that started off as free but have changed, if only by including banner advertising and a shop. The trend is not yet powerful enough to justify predictions that the Web will eventually split into quality sites for which users have to pay and free sites that are of poor quality, but there are signs of change. Given the expense involved in creating, running and updating any site, the chances must be that the best material will be developed by sites that can rely on costs being covered by income generated, even if, as Claudia Popov's article in Part 1 shows, this is not a trouble-free option. Apart from anything else, commercial courses are competing with free courses and will presumably need to provide convincing reasons for anybody to hand over money. Expensive — perhaps even 24-hour — access to teachers is an obvious one, as is the certification that universities and other educational institutions can provide.

All the same, the Web still contains plenty of sites that provide resources without charge, and there is no reason to believe that they are going to disappear soon, or at all. So one likely future is for the Web increasingly to be split between the commercial and the charitable, with a category of sponsored sites in between. Where languages are concerned, the most likely and best endowed sponsors will be governments who see the Web as a useful way of exporting their culture, though the sites created by publishers to support their textbooks might also be seen as sponsored. A complicating element in such a scenario is the fact that it seems inevitable that commercial sites will focus on the small handful of languages in high demand (with ESL in the lead), leaving the less common languages to the enthusiasts, or, in some cases, to governments.

Reflections on the pedagogy

Technology, ideas and implementations are changing too rapidly for it yet to be possible to provide a definitive picture of the pedagogy that drives CALL on the Web. It is easy to see, though, whether individual developments have been directed by technicians, or by teachers, or by a team of instructional designers with expertise in IT, graphics and pedagogy.

Excellent things are being done, especially through synchronous and asynchronous forums like discussion groups, bulletin boards, chats and MOOs. The Web provides wonderful potential for creative teachers to motivate students and keep them interested, and individual practitioners are using different combinations of approaches in a variety of ways. Included among these are hybrid approaches designed to avoid potential technical problems, such as downloading activities from the Web on to a self-contained Intranet, integrating CD-ROMs and the Web, or running audio conferencing or videoconferencing with Web activities.

Pedagogical approaches online range widely from traditional grammar-based teaching to innovative goal-oriented quests, with the former still dominating. However, it can be difficult to determine the overall teaching approach of any site because what is freely accessible on the Web is often only part of a larger package that also invariably includes face-to-face teaching. It is likely that the most exciting learning takes place off-line in the creative processes negotiated between teachers and learners, sometimes across continents, in which the Web features as a tool rather than instructor. However, the latest generation of online Webquests and simulations promises to become a pedagogically exciting and sound exploitation of the new technologies.

Nevertheless, while the Web is providing an increasingly rich shared free resource to CALL practitioners, the often alluded to radical rethinking of the teaching approach still has a long way to go. The goal remains to use the Web for meaningful, realistic activities, to rethink the teaching approach, and to exploit the various communication resources available in the most motivating way possible.

Resources surveyed

Types

To help clarify what is on offer, the materials listed here are divided into categories that reflect different approaches to providing learning resources for languages on the Web, and range from substantial materials or whole subjects to self-contained interactive tasks. The divisions between the categories are not absolute — not only is there inevitably a great deal of overlap between them, but there is, in any case, a tendency for sites to become multi-purpose (not only grammar lessons and exercises, but also Web tasks and chat, for example). However, feedback on *Virtual Language Learning* suggests that even a rough division is useful. In this revision, the extensive category of ESL has been included in the main text. If the collection is still dominated by a small number of mainly Western European languages, it is — unfortunately — because they are the languages for which materials continue to be most plentiful.

Recent developments on the Web are reflected in some new categories, like the wonderful sites for children, the still scarce but excitingly sophisticated Webquests, complex collaborative activities, professional development, tools, and publishers' sites. We have also included a section of metasites for anybody who wants to explore further the wealth of material that is available on the Web even though, in the absence of databases that are both fully comprehensive and critically annotated, users have to cope with the problem of identifying relevant material from the bewildering choice on offer.

While many months have been devoted to searching the Web, often with the help of colleagues who have forwarded favourite sites, this collection does not aim to be — indeed cannot be — fully comprehensive. Instead, we have done the work of selection across a range of individual languages with the aim of producing a list of interesting and useful sites as a starting point for further searches.

Rationale for selection

Selection has focussed on resources which (a) have the potential to be integrated into existing courses, (b) are instantly usable without a teacher where adequate online feedback is provided, (c) are free or available at a reasonable cost or for credit, and (d) are substantial or provide useful self-contained activities. While some of these resources may be of greatest value within the context of their host course, all offer many hours of useful work for motivated students.

We have included what we thought the best examples for languages in which the selection was large, and most available examples for languages in which only few resources were found. Covering a large number of languages has allowed a wide variety of approaches to method, graphics, structure, feedback and ideas to be presented.

Evaluation of resources

Resources have not been judged against any other criteria because it is impossible in many cases to judge an entire approach from online materials that form only part of the course. Instead, our aim has been to produce a comprehensive picture of what can be done, and allow readers themselves to choose what suits their purpose best. While no attempt is made to tell teachers how to teach or learners how to learn (for tips on pedagogy see *Virtual Language Learning*), some indication is given of how substantial and user-friendly the sites are.

An effort has been made to include only those materials that promise to be around for some time and that are frequently updated. However, given the volatility of the Web, where sites may disappear or change their URL overnight (not all provide a link from the old URL to the new), this is not easy to achieve, and this listing may well include some errors by the time it is published. In general, though, our experience has been that there is a high degree of continuity over time. Revisiting sites for this revision has made it clear how much of a threat the pressures of the real world are. Projects begun in enthusiasm grind to a halt because enthusiasm is not enough. A depressing number of sites list dates for the last update that are months or even years old. The danger is that sites will fossilise when the pace of technological change is brisk, and the pioneers of 1998 can seem old-fashioned by 2001 if they have done nothing since.

Acknowledgements

Authors have generally been acknowledged by name and institution. If either or both are missing, this is because no provision had been made on the Web page to contact the authors or communication facilities were not yet functional. We are grateful to all for the generosity with which they have made their materials available.

Verification of sites

All sites were last verified in May 2001.

A. Integrated materials

This section lists sites that offer Web-based materials as part of a larger package which may include texts, CD-ROMs and video resources. Unlike similar packages in Section C, the Web material is available without charge. These sites may or may not involve face-to-face teaching.

French

A1. First Year French@ut Austin

http://www.lamc.utexas.edu/fr/home.html

This is an excellent example of a well designed combination of face-to-face teaching and computer assisted learning materials, coordinated by Carl Blyth at the University of Texas, with the Web material intended to contribute to a research project investigating the ideal components of a successful CAI program. The home page includes an overview of the curriculum and methodology, interactive video, Web exercises and links relevant to the teaching program, and grammar. The CD-ROM is an important part of the overall program, not just for the 14 dossiers that it contains, but for an extensive range of work (comprehension, for example) that is built into them. Anybody interested in interactive language activities should look here rather than in the grammar exercises. The Web materials consist of task-based interactive projects neatly constructed around single topics with clarity of approach and user-friendliness as their most outstanding features. The site includes a French reference grammar (E11) and an extensive set of interactive grammar exercises (E10).

The French page is one of several sections listed under Liberal Arts Instructional Technology Services (www2.sp.utexas.edu). Other sections of interest are French Grammar, First Year French RealAudio Resources, Tex's Lower Division French Grammar Drills, French for Business, Spanish 506 Computer Aided Instruction and Spanish 506 CAI Grammar Drills (E18).

Indonesian

A2. Bahasa Indonesia untuk Penutur Asing

http://indonesian.arts.monash.edu.au/

This developing Web site under the direction of Paul Thomas is part of a course offered at Monash University. Among other elements in the program is a CD-ROM with video clips and associated sound files as well as all the reading materials in the course and some multiple-choice questions. A strong focus of the site is on encouraging communication among students and staff. It is almost entirely in Indonesian, with the exception of an information section in English. Teaching areas for each of four different levels are integrated with the printed and electronic teaching materials. Each level offers a range of information and services, including links relating to course work, an online student magazine, a notice board and a student lounge. Plans are to add video and more sound to the site, among which will be student presentations and a monthly radio program. Interactive exercises are being created through the use of Coursebuilder, with examples available at level two. They take the form of multiple-choice questions with immediate feedback. A primary purpose of the site is to assist students — on-campus, distance students, and students in Indonesia — to communicate and share work with each other, but its open access has allowed Japanese students learning Indonesian in Japan to make contact via the student lounge. This is a good example of the possibilities that the Web can open up.

Italian

A3. ITALIA 2000 The Internet Italian Course

http://www.italia-2000.com/welcomeFrame.html

A European LINGUA project designed to alleviate the shortage of materials for the intermediate and advanced learner of Italian, Italia 2000, which is a cooperative venture across a range of universities, describes itself as part of a new wave in language learning. It provides a set of multimedia Italian language learning resources (workbook, video, CD-ROM, floppy disk) published by Giunti Multimedia, along with a Web site that contains additional interactive exercises. The material is entirely in Italian, and the approach is noted for the fact that it uses large amounts of video as the central teaching resource. The course is based around twelve units of study which relate to half-hour sections of edited footage from programs broadcast on RAI or Teletna. The units explore a variety of cultural themes, but are in no particular order. Each offers a short video clip; a full transcript with replayable sound bites; a glossary; a description of the learning objectives for the module, including the linguistic features being studied; and a series of exercises (fill-ins, mix and match, rearranging text, true or false), designed to test and extend linguistic competence, which are marked on the spot. The site includes a small selection of Web links with annotations, not all of them as frank as "a good example of how not to present a resource page". At the moment the materials can be used by anyone with a password which is given on request, but anyone wishing to include Italia 2000 in their own course needs to contact the developers for permission.

Korean

A4. Korean Through English
http://www.mct.go.kr/hangeul/index.html

This site provided by the Korean Ministry of Culture and Tourism is based on the textbook *Korean through English Book 1* which has accompanying videotapes and a CD-ROM. It offers 10 chapters at beginners' level which include dialogue, vocabulary, pronunciation, grammar and listening practice.

Portuguese

A5. De Tudo Um Pouco. Portuguese Beginners Course.
http://www2.arts.gla.ac.uk/PortLang/transit.html

This is the Web version of a fully integrated course book with multimedia software for beginner's Portuguese, written and designed by Mike Harland with the help of Cristina Sousa at the University of Glasgow. The material is available to people outside the university, but any access for which fees are charged needs permission. At the moment, the course is effectively an on-screen book with the addition of sound. Its ten chapters include grammar, spoken texts, vocabulary (which can be looked up in a frame) and exercises. The material also functions as a reference text for structures which can be looked up independently of the lessons. The course provides brief pages of explanations of the structures with a link to exercises at the bottom of the page. The plan is for the exercises to be interactive, but for the moment feedback, where it exists, normally consists of displaying model answers.

The site is a subset of the main Portuguese home page which also features a section of cultural resources covering news; a review offering items of general interest, including student essays; an extensive set of Web links; a bank of materials for use in teaching and learning; business vocabulary; some literary texts and student notes; and background to Portuguese-speaking nations.

B. Substantial materials or whole subjects

This section lists sites which provide comprehensive materials which are either integrated into the host course, or offered on a stand-alone basis. Teaching and practice materials, including online feedback, are freely accessible, although for some, registration may be required in the future. Where interaction with the tutor or submission of assignments is offered, access to that part of the site can be expected to be restricted to enrolled students.

Phonetics

B1. Online Phonetics course
http://www.unil.ch/ling/phonetique/api-eng.html

This course, developed by Christophe Pythoud at the University of Lausanne and now revised by Aris Xanthos, is designed to teach the fundamentals of phonetics and mastery of the International Phonetic Alphabet (IPA). It provides no feedback and is essentially an online textbook on basic phonetic concepts, the IPA alphabet, consonants and vowels. Visitors are advised to look at the French pages to keep up with the latest changes since only four of the five chapters appear on the English page. Development seems to have spurted recently.

South-East Asian languages

B2. SEAsite
http://www.seasite.niu.edu/

The purpose of this ambitious project of Northern Illinois University and its dozens of contributors is the free dissemination over the Internet of language instruction and other cultural, political, and social information about South-East Asia. Although the stated intention is to develop interactive language materials for Thailand, Indonesia, Myanmar (Burma), Vietnam and the Philippines, the site now also includes Laos. The promise of ongoing development is being fulfilled, though the pace of progress varies from language to language. While not all sites are identical in approach, the centre has developed a set of quizzes and other tools that appear in more than one site — simple multiple-choice, set-of-three multiple-choice, word drag and drop, picture drag and drop, flashcards (for vocabulary learning), and a word matching quiz. The six individual languages are listed below or in Section D, depending on how far advanced each is.

Chinese

B3. Chinese2 Australia
http://www.arts.monash.edu.au/chinese/chinese2/

This site was developed at Monash University by Robert Irving and InJung Cho with additional content input from Jianjun Urwin and Lijun Bi. It provides reading and listening materials for second year students who are able to recognise approximately five hundred Chinese characters. The materials — eight units on everyday themes — are designed to supplement a conventional face-to-face course. They are suitable for self-study or for delivery in a supervised CALL class, and have been fully integrated into the Monash Intermediate Chinese curriculum. The passages in the reading section are all set in a contemporary Australian context and are designed to develop students' wider reading comprehension ability through true/false, multiple-choice and short answer questions with online feedback. Recognising the difficulties in developing reading proficiency in a character-based language, the authors have provided an audio version of each passage as well as comprehensive vocabulary notes. The listening component, designed to improve students' comprehension ability, is organised around the same eight topics. Each unit comprises notes, listening comprehension questions and an extension exercise.

English

B4. StudyCom's English for Internet
http://www.study.com/index.html

This site, staffed by volunteer teachers, offers a range of free English lessons in grammar, reading and writing, listening, and speaking, along with a chat room. Some classes are available in real time. Grammar is available in three grades — beginner, intermediate and advanced. English for speaking and conversation uses Internet Telephony and Voice-mail. Reading and writing English for Internet comes with individualised tutor support in 20 lessons to be completed within 12 weeks. The whole package seems too good to be true, but the site is a teaching project initiated and overseen by David Winet from the University of California at Berkeley. Its purpose is not only to explore and expand the educational potential of the Internet by offering free online instruction to students from all over the world who might otherwise not have access to commercial classes, but also to identify the advantages and disadvantages of online education and the optimal methods for instruction and learning within the online environment. For the volunteer teachers, there is some reward in the shape of an ongoing seminar to help them develop their online teaching skills, enhance their technical know-how, and introduce them to the specifics of online teaching. A small placement test is available consisting of multiple-choice items of grammar, and some free composition and free answers to questions on a passage for comprehension, where the answers are sent to the site for evaluation.

B5. Dave's ESL Cafe on the Web

http://www.eslcafe.com/index.html

This excellent site produced by Dave Sperling is packed with interesting resources: ESL cafe news, address book, bookstore, chat central, a large variety of discussion forums, FAQs, graffiti wall, help centre, hint-of-the-day, idea cookbook, idioms, job centre, mailing list, message exchange, phrasal verbs, photo gallery, quiz centre, quotes, slang, student e-mail, teacher e-mail, T-shirt, and Web guide links. A number of brief multiple-choice batch-marked quizzes are offered covering geography; grammar; history; idioms, slang and words; people; reading comprehension; science; world culture; and writing. Feedback consists of reprinting the questions with correct and incorrect answers identified and a score.

B6. DEIL/IEI Lingua Centre

http://deil.lang.uiuc.edu/

This extensive site is maintained by Douglas Mills at the University of Illinois with a range of resources clearly and informatively grouped into 12 categories on the home page, most of them groups of links, but also some listening material, test preparation and Web pages designed by students. Sections listed elsewhere are the online magazine Exchange (G1) and Grammar Safari (E7). The site is useful as a source of ideas for the classroom teacher with the authors providing suggestions about how to exploit the material.

B7. English Practice

http://www.englishpractice.com/

This site offers extensive resources — 40,000 English language lessons covering grammar, culture, listening, pronunciation, reading and vocabulary, with new lessons every week; tests; chat and a discussion board; penpals; games, including multi-player games; an opportunity to talk to the teachers; contests with prizes; and information about study abroad. A weekly newsletter is available, with an audio version to complement the text. The reading material includes a novel (Treasure Island) on the Net, with each chapter having an introduction and practice material, including comprehension questions. The program even gives the student's reading speed. The learning material is listed in four courses — beginning, intermediate, advanced and TOEFL — which provide a new example each day of what the student should be studying. A business course and a travel course are also available. Tests take the form of arranging sentences to form a logical conversation, with immediate feedback, or of picking written sounds in a test of pronunciation. In grammar, an explanation of the point is provided, and multiple-choice fill-ins are offered with immediate notification of whether the response was correct or incorrect with a running score. If the response is incorrect, the correct answer is shown.

German

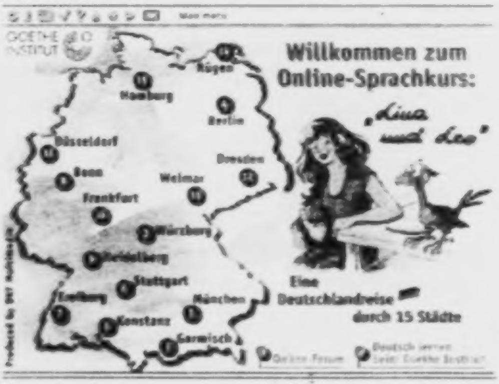
B8. German for Travellers

http://web.uvic.ca/pgolz-gft/

This is a new and expanded version of Peter Gölz' previous *German for Beginners 2*. The new title may not fully express what is available. The site does contain a section on travel, with information about German-speaking countries and useful links, but a significant section is devoted to basic German in four main sub-sections — vocabulary lists with sound, self-tests based on the vocabulary, grammar explanations and exercises which currently offer 17 sections (one new section is planned a week), and a separate set of exercises taken from *German for Beginners 2*. In the text-based versions (there are also tests with sound and pictures), the tests pop up in a new smaller window, and take the form of fill-ins. Feedback consists of removing the incorrect answers and leaving the remainder. To complete the exercise, the user has to get all the answers correct. This would be an imposing task if it were not for the "Hint" facility which produces another letter in the answer every time it is called on. Even so, it can require patience to complete a difficult test. The site includes a small group of links to other language learning resources, including the dictionary from Chemnitz University.

B9. Lina und Leo

http://www.goethe.de/z/50/linaleo/mainmen2.htm


GOETHE INSTITUT
Willkommen zum Online-Sprachkurs:
„Lina und Leo"
Rügen
Hamburg
Berlin
Düsseldorf
Bonn
Dresden
Weimar
Frankfurt
Würzburg
Heidelberg
Stuttgart
Freiburg
München
Konstanz
Garmisch
Eine Deutschlandreise durch 15 Städte
Online Forum
Deutsch lernen beim Goethe-Institut

Produced by DFK Multimedia, this is a charming German course for self-learners at the beginner's level, structured around a trip to 15 Germany cities undertaken by an architecture student, Lina, and a talking parrot, Leo. Each of the 15 lessons starts with two dialogues, two interactive exercises relating to these

BEST COPY AVAILABLE

dialogues, and further exercises on grammar and vocabulary. Each lesson contains a section on grammar and relevant links. The exercises take the form of multiple-choice, fill-ins, drag and drop, and sorting sentences. There is also an exercise with sound input for the user to imitate for which there is no feedback. The graphics are wonderful, with dialogues taking the form of cartoon sketches that zip by rather quickly. Feedback for the exercises takes the form of a green tick or a red cross, but there is also a sketch of the teacher on the screen looking happy or unhappy depending on the result. Users can try again to correct what they have got wrong, but can also call up the correct answers.

B10. LernNetz

http://www.skolinternet.telia.se/TIS/tyska/

This site, created by Johannes Jänen, is devoted to German but is Swedish in origin. Since the site is largely in German, this does not usually have an impact on the user, except for the lookup grammar database linked to the lessons where explanations are in Swedish. What is online represents a small part of the entire teaching package, but it includes articles in *Aktuelles*, a chat, and a set of useful links largely in the area of culture in the cutely named Webliothek. The 35 lessons cover reading comprehension, role-plays, work on the Web, writing, vocabulary and grammar. Tests are built into the lessons and take the form of fill-ins which are batch-marked. Correct answers are signalled by rather charming smiley faces in yellow, incorrect answers by frowning faces.

Greek

B11. Modern Greek as a Foreign Language — Advanced Level

http://www.eng.auth.gr/learn/index.htm

This site, designed, developed and maintained by Fanny Galatsopoulou and Chrysa Mantatzidou as part of their M.Sc. thesis in Foreign Language Teaching, includes a course for advanced learners of Modern Greek. It consists mainly of short integrated reading and writing activities to give students around the world the opportunity to use and improve their Greek. Some tasks are designed for autonomous learning, others demand interaction with the developers, and all of them promote meaningful Greek communication and a better understanding of Greek culture and society. All the texts used as teaching materials are authentic with some attention given to structures of grammar and syntax. The authors are interested in students who are committed to completing the whole course. The site was last modified in May 1997.

Indonesian

B12. Beginning Indonesian
http://web.uvic.ca/lancenrd/indonesian/index.htm

Developed by Martin Holmes, Shannon West, Marije Plomp and Malini Sivasubramaniam, this University of Victoria site aims to give elementary students the opportunity to practise and review basic vocabulary, grammar and sentence structures, with Indonesian as the language of instruction for all except the introductory unit. Each of the 14 units contains various types of interactive exercises using Hot Potatoes, including multiple-choice, gap-fill, matching, short-answer, word and sentence ordering, and crosswords. An online glossary is available.

Italian

B13. Quattro passi nell'italiano
http://www.unive.it/~cli/quattro/uno.htm

This beautifully presented course, described as *un'esperienza di apprendimento dell'italiano a distanza*, has been developed by Maddalena Angelino, Marina Biral, Roberto Dolci and Valentina Zangrando at the University of Venice. The course is structured as two books, each with sections on recipes, poetry and Venice. These in turn are linked to a collection of photos and to reading texts. The exclusive use of Italian and the level of the texts mean that the course is best suited for students who already know some Italian. Entry into the course is through texts of various kinds, to which are attached written exercises typically taking the form of fill-ins, such as supplying the missing prepositions from a recipe. No grammar lesson is explicitly given, but there is a link available to a grammar frame that provides brief explanations of the relevant point. It is also possible to access the whole grammar database via a general alphabetical index. Feedback takes the form only of a printout of the correct answers in a separate frame. The site offers an online entrance test of the student's level of Italian, which consists of 20 multiple-choice questions (selecting the correct words to complete a sentence), and a Cloze test based on a passage from Calvino.

B14. Oggi e Domani
http://academic.brooklyn.cuny.edu/modlang/carasi/site/main.html

Describing itself as *the Interactive Web site that makes learning Italian easy*, created by Fabio Girelli-Carasi, and hosted on the server of the Brooklyn College of the City University of New York, this is a beautifully presented site which includes a bulletin board, a chat room, and a set of links in addition to the language course. This latter offers 20 substantial lessons with sound, as well as links to a dictionary and a grammar. Included in the lessons are interactive exercises, typically fill-ins which are corrected by removing the wrong answers and providing a score. Further attempts are possible until all the answers are correct. To ensure this result, there is a help feature that provides one letter at a time of the correct answer. Other exercises are corrected by pattern matching, while still others provide look-up answers opposite each question. There is also provision for quite extensive bits of guided writing on-screen, but, naturally, they are not marked by the program.

Japanese

B15. Sakura: Japanese Online at Monash University

http://www.arts.monash.edu.au/subjects/japanese/sakura/

The site, which is actively under construction by Takako Tomoda and Brian May, supplements an in-class introductory level course, with materials designed to cover those areas in which students need reinforcement, and to stimulate self-directed study (see the article in Part 1). There are a small number of links to other Japanese language sites and a section on Web tasks is under construction. The main part of the site is a series of modules containing a variety of interactive and self-marking exercises relating directly to the lessons in the authors' textbook *Interactive Japanese 1.* Some involve sound, and many have parallel Japanese script and romanised versions. To reinforce the learning of the Japanese scripts and vocabulary, exercises are provided that require quick responses, with feedback on time taken as well as accuracy. The exercises are randomised or presented in multiple versions to encourage frequent use. While most are based on multiple-choice or Cloze and involve selecting from pull-down menus or typing into text fields, some require multiple skills such as listening, reading and writing.

B16. Japanese Online

http://www.japanese-online.com/

Subtitled *Japanese Language Resource and Community*, this award-winning site by Pacific Software Publishing contains introductory language lessons, Japanese maths lessons, a dictionary, a bulletin board that seems quite active, and a selection of links with brief comments. It also includes an online shop and a separate page listing products from the Language Solutions Group. Users can also subscribe to a free e-mail newsletter. The 16 Japanese lessons by Suguru Akutsu provide dialogues with sound files, vocabulary, grammar and culture modules. Small tests are provided at the end of each lesson and include free answers to questions as well as fill-ins. However, there is no provision for them to be answered on-screen, and the only form of feedback is a set of model answers. From lesson six onwards, Japanese script is required.

B17. Irrashai: Welcome to Japanese

The Japanese Language and Culture Distance Learning Course
http://www.peachstar.gatech.edu/irasshai/

Georgia Public Broadcasting, in collaboration with the Georgia Institute of Technology, has produced a beginners' and a second year course in Japanese, designed by Tim Cook and taught by distance education, which is intended to combine the best in satellite TV instruction, Web/multimedia, and telephone interaction. The course looks to be comprehensive for those who can enrol in it, using satellite TV programs and weekly telephone hook-ups to Japanese native speakers. This site is essentially supplementary to the course, and features a wide range of curriculum enrichment materials. It offers Hiragana and Katakana reference charts with audio and video and writing practice sheets, online projects, an extensive selection of links in about 60 categories, and discussion groups for students and facilitators. It provides 73 lessons for first year and 63 for second. The focus is overwhelmingly on the culture of Japan, with several links in each lesson, including links to samples of students' writing. The material is overwhelmingly in English. Activities include matching games with words in Romaji, English, Hiragana or Katakana, and selecting answers to questions (with sound).

Korean

B18. Virtual Centre for Learning and Teaching Korean

http://www.arts.monash.edu.au/korean/centre/resources/

This site, developed by InJung Cho and Young-A Cho at Monash University, provides course materials for beginners and intermediate level Korean. It is designed to support on-campus students and is not intended as a distance education program. The site runs a BBS, two mailing lists for learners and one for Korean language educators, all open to the public. The site is scheduled to undergo a major redesign in 2001, which will see the addition of new materials.

The site also houses Korean III which provides advanced intermediate course materials structured around ten topics, each with a Korean-English glossary, background socio-cultural information, grammar explanations, authentic texts and TV news clips (sound with still photo). The topic-oriented design with components of rich support materials enables students to study materials that cannot easily be presented in class. The sound clips come with a Korean transcript and an English translation that can be called up in a frame, and a set of questions on the material, with answers provided in a box on-screen. Assignments take the form of free composition to be sent to the tutor, and InternetPhone sessions with fellow students.

B19. KOSNET (Korean Study Net)

http://www.interedu.go.kr/

This Government-funded site provides online language study in Korean at four levels — a kindergarten course (ten themes), two children's courses (15 themes each), and an adolescent/adult course (20 themes). Each theme consists of 1-3 units containing dictionary, practice, test, exercise, and progress results. The site includes a selection of links, information about educational institutions in Korea and overseas, a message board and a chat.

B20. Korean Studies at Sogang

http://korean.sogang.ac.kr/

This site is provided by the Center for Korean Studies at Sogang University in Korea. It offers six courses — one introductory, three novice and two intermediate — each of which consists of 10 units containing listening, reading, dictionary, vocabulary and grammar practice, as well as assignments. It has bulletin boards to support communication between students and staff members.

Spanish

B21. Spanish Online

www.arts.monash.edu.au/subjects/spanish/year1/

This site, developed by Jorge Paredes, Marta Lopez and Peter Stagg at Monash University, offers grammar explanations, self-check exercises with immediate feedback, and written exercises which can be submitted to the teacher by e-mail. It comprises 18 sections spread across two semesters of work. It is not intended to be a complete stand-alone course, but to supplement regular in-class teaching. All explanations, examples and exercises are in Spanish. Since the students at Clayton and Berwick use *Dos Mundos* as their textbook, while the students from Open Learning use *Destinos*, the grammar exercises have no direct relation to either text. Instead, they are designed to complement any comprehensive language text and are organised according to the most common patterns used to teach first-year Spanish to true beginners. Where the exercises are concerned, some fill-ins are corrected on-screen, though the correct answers are not always provided. Others require free composition in response to questions with the work submitted electronically to the tutor. Links to other language sites provide extra listening comprehension practice, grammar explanations and exercises.

Tagalog

B22. Seasite Tagalog

http://www.seasite.niu.edu/Tagalog/Tagalog_mainpage.htm

Entitled *Interactive Language and Filipino Culture Resources*, this extensive site has been developed by a large team of Rhoda Gallo-Crail, Noel M. Morada, Maria Sheila Zamar, Reynaldo Ong, Susan Russell, Robert Zerwekh and Teresita Ramos — the latter is the author of the textbook the site is designed to supplement. On offer are an onsite dictionary and a Tagalog grammar, and a rich variety of cultural materials in the form of Tagalog short stories, poems, riddles, proverbs, and idioms. It also provides a set of links to the media and government. Communication is supported by a chat room and a discussion forum. More extraordinarily, users can send e-mails to a tutor describing their problems with the language, and feedback is promised as soon as possible.

Tagalog Grammar is divided into Beginning Tagalog 1, for learners with minimal language skills, and Beginning Tagalog 2, for learners who have a good set of vocabulary and a basic understanding of syntax and grammar. As its name suggests, it is a textbook on the Web, divided into 16 chapters. It functions as a reference text for the thematic lessons that are also provided. Interactive language learning activities are provided primarily through 66 thematic lessons taken from *Conversational Tagalog: A Functional-Situational Approach*. The activities are organised to develop reading, writing, speaking, listening and grammar skills. Each lesson presents the dialogue, vocabulary, grammar and cultural notes, comprehension and interpretation questions, and subjects for discussion. The exercises are full and varied, but there is no feedback, not even in the form of look-up answers, so the site here falls well short of the promise of interactivity.

Tamil

B23. Web-Assisted Learning and Teaching of Tamil

http://ccat.sas.upenn.edu/plc/tamilweb/tamil.html

A project of the Penn Language Center at the University of Pennsylvania, with the participation of Chicago and Cornell, this site by Harold F. Schiffman and Vasu Renganathan contains a wide range of teaching materials designed for the study of modern spoken and written Tamil at beginning, intermediate and advanced levels. The skills the site claims to teach over the Web are listening, reading and writing, but not the active production of spoken Tamil because of current technical limitations. The materials would best be used under the guidance of a teacher. While exercises include multiple-choice and Cloze tests that are corrected online, some need to be e-mailed to a tutor for correction.

Thai

B24. Seasite Thai

http://www.seasite.niu.edu/Thai/default.htm

According to the overview by John Hartmann, this site aims to be an information-rich, multimedia, interactive Web site for a very wide audience. This is a model site covering Thai language and culture — comprehensive, well thought out and well designed. It provides many links to Thai sites, with particular emphasis on a wide range of literature, from classical tales to folk tales, cartoons, comics and pop songs. There is a brief course in Quick Thai for travellers who want to learn some of the basics in a short time, but the focus is overwhelmingly on a serious study of the language. Forty text-based lessons, based on an authentic Thai primer and covering the elements of the writing system with sounds to match, introduce students to reading in context. Beyond this, there are ten further interactive lessons taken from Mary Haas's *Thai Reader*, as well as a series of short conversations illustrated by photographs. The site also includes a complete 13-unit course in spoken Thai with sound, and interactive tests of listening comprehension based on a work by Mary Haas. Language work is supported by a series of exercises and quizzes, and reading work is offered at three levels — beginning, intermediate and advanced.

Vietnamese

B25. Seasite Vietnamese

http://www.seasite.niu.edu/vietnamese/VNMainPage/vietsite/vietsite.htm

This site, designed by Hieu Nguyen, Dan Dan and Trung Van Vo, provides a program of Quick Vietnamese for Tourists, but its core is a series of 20 Lessons on spoken Vietnamese. These take the form of a dialogue, pages of grammar, exercises and self-tests. These latter two either provide the answers on-screen, or presumably require the work to be written down and handed in. There is no scoring, so these pages function simply as a look-up test. There are also some interactive tests which are password-protected, but open to guests using the ID given. Typically they use sound input and take the form of multiple-choice questions. The work is marked by e-mail, with feedback consisting of the question, the answer given, an indication whether it was right or wrong, and the correct response if the answer was wrong. Results for guests are not sent on to the instructor. Another form of interactive testing provides online scoring, either immediately after each question or, in some cases, after each set of three. The site also offers a limited amount of information about Vietnam supplemented by a small selection of links.

B26. Beginners Vietnamese

http://www.arts.monash.edu.au/viet/

This is an interactive site for beginners' Vietnamese, developed by Quynh-Du Ton-That and Lou Winklemann, and offering 15 lessons integrated into the beginners course originally at Monash University and now at the Australian National University (ANU). It includes sounds for pronunciation exercises, dialogues for grammar exercises, video clips with exercises, and contextualised grammar notes. Immediate feedback is given for a variety of untimed and timed exercises and practice tests. Other features include timed and password-restricted tests to be submitted electronically, a Vietnamese-English-Vietnamese Glossary, detailed information on Vietnam and its culture including links to relevant sites in Vietnam, a bulletin board, and two chat programs. The first of these is meant for simple communication exercises between students, or between lecturer and students, in which the text disappears after the site is closed. The second is used mainly for structured cooperative writing exercises, and all written text is retained so that the lecturer is able to give feedback to the students. Materials are also provided on CD-ROM. These materials are being further developed cooperatively with the ANU (http://asianstudies.anu.edu.au/viet/).

C. Substantial materials — commercial or protected

Sites listed here offer online courses with varying degrees of substance in terms of content and feedback structures. They are available either on a fee-paying basis, or to enrolled students at the host institution. Some include free sections with an option to sign up for courses.

Various languages

C1. International Language Development
http://www.ild.com/

This site offers lessons in six languages — French, German, Japanese, Korean, Russian and Spanish. It includes chat sites in French, German and Spanish, with Japanese listed but not yet live, a travel section, and a shop. A good feature is the search engine which generates a lot of links in various areas. On the home page, the results may not be relevant to the languages, since they are a collection of English resources, but the language sections produce links in the target languages. What the site does not offer is a great deal of information about the scope of the program, though the first lesson in each language is available for testing online. It takes the form of sentences of dialogue with sound, supported by sections on vocabulary, conjugation and grammar. The online exercises are fill-ins or multiple-choice, with some requiring full sentences. However, the feedback is bewildering because it bears no relationship to the work that the user has done on-screen. Instead, a model set of responses — not the ones the user has typed in! — is displayed with a mark and the required answers. (In Russian and Spanish, no score was given, and the feedback was simply a page of model answers). As a demonstration of what the program has to offer, this is not very useful. It is to be hoped that more targeted feedback is provided to enrolled students. Anybody interested in this program should find out what the full course consists of, and how the exercises are marked and feedback provided. Cost is a very low US$9 per language.

C2. World Language Resources

http://worldlanguage.com/

Billing itself as the World Language Store, this is basically a commercial site selling an extensive range of language software, with a few free downloads. Its services are divided into six categories, including dictionaries, which lists 912 items in 129 languages; language resources, providing 1423 tutorial products for 171 languages; and localised products which lists software like Windows in various languages, and offers 574 items in 31 languages. There are 252 spell checkers for 108 languages, and translation services offers 290 software packages for 48 languages (one for Japanese is listed at US$9500). Finally, 5742 videos and movies are listed in 124 languages. For anybody who wants to buy material, this is a good place to start.

Chinese

C3. Bridges to China

http://www2.meu.unimelb.edu.au/b2c/

This is a Web-based intermediate level course, currently offered as a Graduate Certificate in Modern Standard Chinese by the University of Melbourne Institute for Asian Languages and Societies. It consists of four integrated subjects which focus on developing language skills and cultural knowledge. The content covers a range of social issues of interest to adults and relevant to interacting in modern Chinese society. The course presents a series of structured online interactive learning experiences supplemented by additional speaking and listening material on CDs. Students can keep in touch with other students and tutors via e-mail, telephone and regular participation in online chat groups. There is scope for publishing students' work online. Course materials are delivered via the Internet with audio files and graphics also supplied on a CD. A sample from the beginning module is available online, along with the requisite software to be downloaded. A CD-ROM *Introducing Bridges To China* showing extracts from the course is available for $10 from the Multimedia Education Unit at the University of Melbourne, with QuickTime the only required application for viewing it. A stand-alone CD-ROM version of *Bridges to China* will be published in mid-2001. For further information, see the article in Part 1.

C4. Internet Based Chinese Teaching and Learning

http://chinese.bendigo.latrobe.edu.au

Chinese 101 is a good example of what can be achieved using WebCT as an authoring template. It is designed by Zhang Lizhong to provide beginners with fundamental skills in listening, speaking, reading and writing Mandarin, with background information on China's history, culture and society included as elements in the course. The home page provides information about the course and a selection of links. Fees are $458 for full enrolment which covers assignments and certification, or $150 for partial enrolment without these elements. The course lasts six months and covers 15 lessons, the first two of which are available online as samples. Material is delivered online, with the additional support of printed textbooks, audio and videotapes, off-line courseware and ordinary postal correspondence. A test is taken after every five lessons. Students participate in group discussions through an online weekly magazine and chat programs. Each lesson includes language drills and exercises with the answers e-mailed to the tutor for assessment. Categories in the lessons include new words, pronunciation, stroke order, flashcards for characters, dialogue, listening practice, grammar, a proverb, exercises and online multiple-choice quizzes. Immediately on completion, each question is marked as correct or incorrect, with a smiley or a cross appearing next to the option chosen.

English

C5. Englishtown

http://www.englishtown.com

This site provides English tuition for $55 a month, with a free trial available. The program offers unlimited teacher-led speaking lessons, teacher-led writing workshops, 24-hour access to teachers, a series of self-directed lessons and Internet activities, placement and progress tests and multi-player games. The site uses Voice Chat as well as text, produces a magazine, and has a set of useful links. Some free activities are available, in particular short daily e-mail lessons provided at three levels, but users are asked to enrol as members to gain access to things like tests. Some of the feedback takes the form of look-up answers printed immediately below the questions, but there is also instant feedback to multiple-choice questions which places a green tick or a red cross next to the chosen answer.

C6. Internet English

http://www.ihes.com/bcn/ihnl/index.html

Among the language courses offered by International House Barcelona is Internet English, which modestly claims to be "the World's Leading Internet Language School". Courses are available at four levels. The cost of 356 Euros for each covers ten units which require approximately 120–150 hours of study. A free sample class at each level is available.

C7. Tower of English

http://members.tripod.com/~towerofenglish/index.htm

This is an extensive site which organises Web material from around the world into the various floors of a tower. Areas covered include online learning (with online tutors), quizzes and exercises, e-mail and penpal services, a debating forum, floors devoted to film, music and comedy, and links to ESL projects by students from around the world. The "study hall" includes links to study aids organised in various categories, like dictionaries, grammar, vocabulary and quizzes. The number of items in each category is limited, and each comes with a short description and evaluation. The "academy" offers students at intermediate level month-long courses in English Communication for US$50, which include 10 real-time lessons with classmates and an experienced ESL instructor, five fun and educational assignments and team projects.

C8. Global English

http://www.globalenglish.com

Founded in 1997 with the ambitious objective of becoming "the worldwide leader in online English language instruction", GlobalEnglish is a very extensive site. Already one of the most impressive anywhere on the Web, effort is being made to develop it still further, with one of its features being the way it keeps abreast of the latest developments in IT (but not to the extent of supporting Macintoshes). On offer are a range of structured courses for beginning, intermediate and advanced students in General English and Business English (the four beginners' courses are identical for both streams), with each course providing an average of 50 hours of online instruction. Although courses are designed to be completed in 10 to 12 weeks, subscribers may take up to a full year to finish without additional payment. The cost for each course is US$40. A placement test is available. As well as a test centre, the site includes an online magazine, *Global English Today*, an archive, links, and opportunities to communicate with others, notably by hosted Voice Chat.

The teaching program offers a large and ever expanding number of lessons, each of which contains a number of interactive presentations and exercises designed to teach new material such as vocabulary, grammar and expressions. The stated aim is to emphasise speaking and listening comprehension skills, while providing a balanced improvement in all learning skills. The activities offered take advantage of the latest technology in presenting slide shows and targeted listening, reading, and writing exercises, with voice recording available to allow students to compare their speech with the models. An important feature is the individualised attention available through contact with teachers. This can be by e-mail or live, in teacher chat rooms, with teachers available 24 hours a day, seven days a week. A nice touch is that information on Global English is available in a large number of languages, making it a good source for teachers looking for the vocabulary of computer speak in the language they teach.

C9. Virtual Independent Learning Centre

http://www.virtualilc.com/

This evolving site contains two fee-based strands containing more than 500 language learning tasks based on the Certificates in Spoken and Written English. The tasks in Realweb are linked to Web pages and those in Easymedia are based on SBS radio news. Subscribers are assumed to be institutions, and costs for each strand range from $100 a year for a single user, to $700 for 75.

In addition, a third strand "checkout" provides a set of free language learning resources — one is a set of ten sections on parking signs. Some writing exercises are included, but the work done has to be given to a teacher for evaluation, or the story told to a fellow student. One extensive section is reading comprehension based on the stories of actual students with work available at three levels of difficulty. Each story is accompanied by exercises — true/false, arranging text in logical order, fill-ins — with the only feedback being a look-up model answer that follows immediately on the exercise. *Downunder* is a hypertext fiction, again offered at three levels of difficulty, written as part of an ongoing project to investigate the possibilities of the form for language learning. This document explains possible uses of hypertext, its background and development, and provides links to other hypertext sites and readings.

German

C10. Texthaus

http://www.texthaus.com/

This course was developed by a team at Bocconi University and the Catholic University of Milan with Ernst Kretschmer responsible for the didactic coordination. It is taught by Dimitri Michael Ikonomu and marketed by Danio Maldussi. Subscriptions are US$79 for ten lessons at either beginners' or advanced level, or US$159 for the full program of 20 lessons. The first two lessons are offered free, so intending students can try out the material before committing themselves. The 20 lessons for beginner or advanced students are presented in a relaxed, personal way following a friendly cartoon character called Duda. Each lesson includes a grammar section with a main dialogue and an additional reading text with unknown words explained in a frame below the texts, and comes complete with sound. The course includes a variety of online exercises, including dictations and an online grammar. The work takes the form of fill-ins, with look-up answers in a frame at the bottom of the screen. A feature is that each student has a personal teacher to correct exercises that are not handled online and to provide help and advice. Communication is by e-mail, with any corrections returned by the following day. Individually tailored assistance is also available.

C11. InterDeutsch

http://www.interdeutsch.de

This substantial commercial site developed by Claudia Popov offers three different online courses led by native speakers and conducted entirely in German, each of them initially for four weeks. It is suggested that students need to set aside at least four hours a week for the assignment. The General Course in German (125 Euros per month) is for those who need German in their everyday life, and who already have a good basic knowledge of the language. It gives priority to understanding written texts and writing well in German. Brush up your German (125 Euros per month) is for students of intermediate to advanced level who want to take German up again. Business German (175 Euros per month) is for students of intermediate or advanced level who need German in their jobs and are interested in special topics. Each course starts with an entrance test (four passages in a Cloze format) and an information meeting in the chat room during which the student's needs are discussed and a program of work established. Every week, there is a reading text on that week's topic, with questions, vocabulary and grammar exercises. A 200 word piece of work is corrected by the teacher and revised, and a weekly meeting is held in the chat room where students can talk with their teacher about the subject of the week. Individual exercises, tests and links can be found in the Studienbibliotek (E14) which gives a good flavour of the site. The site has been created using Hot Potatoes and applets. It is actively under construction with new items appearing regularly. It also includes a limited number of links to dictionaries and German book publishers. (See the article in Part 1.)

C12. LearnPlus Deutsch

http://www.learnplus.com/german/index.html

This site aims to offer four courses — German I (introductory), II (elementary) and III (intermediate), and a traveller's course (beginners). In fact, all but German I are still under construction. Similarly, Spanish I is available, but Spanish II and III and the traveller's course are under construction. In the pipeline are French I, English I, Japanese I and Italian I. German I, which is described as fully interactive, has an estimated length of about 35 hours, covering 11 lessons and two role-plays. The fee, which gives access for six months, is US$20. In addition, individual tutoring is available for three months at a fee of $55.50. The site offers a free trial of the material and a free evaluation of linguistic level.

Hebrew

C13. Hebrew: A living language

http://www.walla.co.il/

This site is designed for students with no, or a rudimentary, knowledge of Hebrew. It offers lessons on the alphabet, basic grammar, and useful words (with audio) and provides a link to a dictionary. It includes a story in hypertext, a phrase of the week (with archive), and a Hebrew Talk feature. Hebrew fonts have to be installed for any of these pages to be viewable.

Hindi

C14. BharatVani Online Hindi Teacher

http://www.intelindia.com/hinditeacher/

This site includes a variety of materials and services for sale, among them courses which are claimed to represent the first serious attempt to teach Hindi online. The language of instruction is English. Materials available are 17 lessons of elementary Hindi; 26 lessons of a crash speaking course; 14 lessons of reading, writing and typing in Hindi; and 12 lessons of advanced comprehension. Demonstration lessons can be accessed. Cost is US$5 a unit with a fee of US$40 for three months assistance for an online teacher who will answer questions through e-mail and voicemail. The lessons are also available on CD-ROM.

Italian

C15. Cyberitalian

http://cyberitalian.com

CYBER
iTALIAN
click a button to enter!

This is an extensive and well-designed site by Maura Garau and Paolo Vacchina which describes itself as a "meeting place for people wishing to understand Italian culture and language", and which offers courses in Italian using cheerful Pinocchio graphics and friendly and unthreatening language. The whole course consists of 30 interactive lessons with pictures, cultural notes,

BEST COPY AVAILABLE

activities, grammatical explanations, self-administered exercises and exams, audio files, a glossary of 3000 words used in the lessons, and over 100 links. It is divided into three levels: beginners (1-11), intermediate (12-21) and advanced (22-30). Costs are very reasonable: US$20 covers one year's membership of the Circolo di Pinocchio, and access to the courses costs another US$25 per level. Renewal of the membership of the Circolo di Pinocchio provides continued access to the courses. Interested students can sample lessons at each level. The beginners' lessons have parallel columns of text in Italian and English, while the others set out the material in Italian. Each lesson provides a situational dialogue with audio and a small glossary, cultural titbits with audio, some fun activities, explanations of the language structures in the dialogue, exercises, and a final test. The lessons provide a link to formal grammatical explanations. Feedback for the exercises is a printout of the response, the correct answer, and an indication whether the response was right or wrong. The site is very sophisticated in terms of offering a choice of interactive activities (message board and chat according to level), cultural titbits, a gallery of articles about Italy in both English and Italian, and links to other relevant sites, in addition to the language course.

Korean

C16. KOR399: Korean Reading & Writing Course

http://www.lll.hawaii.edu/kor399/

This University of Hawaii reading and writing course for advanced students was developed to support Korean programs in the United States which are unable to offer third and fourth year courses due to limited enrolments. Students are screened by means of an online pre-test. They study core authentic text in each of eight units using the multimedia reading lessons contained on a CD-ROM, and then visit the Web site for further learning related to the text. The course fee is US$393.

C17. KoreanTutor

http://koreantutor.com

This site has been developed by the Korean Tutor Corporation in collaboration with Seoul National University's Korean Language Education Research Institute and offers Korean courses for Koreans living abroad. Its major emphasis is on practice SAT II tests, but it also includes four courses from beginners' to intermediate levels, and offers information on local culture in both English and Korean. As they move through assignments, students can manage their own progress, scores and records, as well as review their problems and progress. The site charges a fee of US$8 per month or US$20 for three months, although there is also provision for membership without charge which offers more restricted access to what is available. Potential students can sample each course free.

Russian

C18. Russian Online

http://www.arts.monash.edu.au/gsandss/slavic/online/password.html

This site, designed for Monash students, is currently password-protected while it is being developed by Irene Romanowski from an original program by George Mitrevski (E15). It includes a dictionary, and a list of endings for nouns, pronouns, adjectives and verbs. The major part of the site, however, is the planned 30 lessons which are divided into tutorials, exercises and vocabulary. The tutorials are pages of grammar work with a link to the relevant exercise in the form of fill-ins and model answers listed in a window. The responses given are not compared with the answers required — and so no total is calculated — but the answer window is small and can be moved around the screen so that they can be viewed simultaneously for comparison. The exercises cover grammar, translation and comprehension questions. At higher levels, free composition is required. In this case the text has to be submitted for marking. The vocabulary exercise in both directions gives a list of words and asks what they mean.

Spanish

C19. Centro Virtual Cervantes

http://cvc.cervantes.es/portada.htm

This very large site in Spanish, maintained by the non-profit Cervantes Institute, has a powerful focus on cultural information, and includes discussion forums, links (these include an archive of Spanish grammar), and a specialised search engine. An important area is an *Aula de Lengua* which includes material about translation and the teaching of Spanish as a second language, and which plans to offer courses in Spanish as a second language designed specifically for the Web. Information about this can be tracked down in the FAQ section. The site still gives September 2000 as the date for the beginning of the courses — something which suggests that even large sites can have difficulty meeting their targets. The coverage planned is extensive, with four modules available at each of four levels (beginners, intermediate, advanced, and superior, with the latter defined as native speaker level). Modules are further divided into 30 units, each of which represents one session at the computer. Estimates of the time needed for each level range from a minimum of six weeks to a maximum of four months. Contact with tutors and other students will be by e-mail and by real-time chat. Fees will be charged to cover the teaching costs, but have not yet been set. A small group of interactive exercises are already available on the site, along with an extensive section of games (I14).

C20. Learn Spanish. A Free Online Tutorial

http://www.studyspanish.com/

This site is an unusual combination of free tuition and a commercial course. The latter, *Camino del Éxito*, is delivered in the form of audio CDs and is essentially an audio course developed by the Foreign Service Institute. Approximately a quarter of the work takes the form of materials on a password-controlled Web site. The cost of US$165 covers the disks and 12 months of online access. The suggested length of study is four months of two half-hour sessions a day. A slightly different measurement is given — three months' work, for half an hour a day, five days a week will produce an ability to communicate in Spanish.

Along with the commercial course, the site is the centre for a substantial and ongoing development of free language materials. Currently, 77 online tutorials are available, with more planned. These are online grammar lessons, linked to exercises and tests. Some of these are marked immediately, while others are sent to the marker and results returned by e-mail. Other sections provide vocabulary lists by category, an idiom generator, verb conjugation quizzes, some brief cultural notes and a selection of links. A major site overhaul is promised, expected to offer more lessons, more practice exercises, and oral drills, in addition to an online program that will allow users to keep track of all lessons and exercises completed, as well as enabling teachers to track their students.

D. Small courses and bits and pieces

Although a hard line cannot be drawn between this section and sections C and E, sites here tend to offer a limited set of activities that extend, at most, to a small amount of course material. Some of the sites listed are part of a larger site.

Various languages

D1. Linguaweb
http://www.linguaweb.co.uk/

This site, created by Mark Pentleton, describes itself as offering online language learning and resources for students and teachers at five levels — beginner, second, standard, higher, and advanced. The five sections planned are: Learn a Language (French, German, Italian and Spanish); a Revision Club to help with studying for exams; a resource centre for teachers; the Linguaweb Café for puzzles, games, reviews and chat; and news (about the site, but also links to newspapers and live broadcasts). Learn a Language offers games oriented towards vocabulary, and quizzes using Quia or Hot Potatoes. It includes attractive interactive listening and writing exercises with voice input that require answers to be typed on to the screen and e-mailed to the tutor (student homework can be e-mailed to teachers who have signed up for the Associate Teacher Program). At the moment, though, most work has been done at the beginners' level, and many of the upper level sections are still under construction. The Revision Club offers practice in reading, writing, listening and speaking, along with grammar revision. The interactive reading exercise is a text with words hyperlinked to a short vocabulary. For some texts, a set of questions in English is provided, with look-up answers available at a click. All other activities are currently under construction. At the moment, this site offers more promise than achievement, but it has made a good start.

D2. Foreign Languages for Travelers
http://www.travlang.com/languages/

This easy to navigate site, created and maintained by Michael Martin, provides a basic phrase book for travelers, with sentences and words in half a dozen categories translated into one of more than 70 target languages, from an equally long list of source languages. Audio bites provide models for pronunciation. An optional quiz tests the vocabulary that has been presented. Feedback consists of reprinting the test with a score, a star for correct responses, and a blank for the incorrect ones (so that gaps in knowledge can be filled only by going back to the original text or by repeated attempts). For each language, there is a short list of sites that might be of interest. There is also a search facility to translate a word or phrase in the particular language, and links to translating dictionaries. The home page also includes links to currency exchange rates, a hotel database, a travel chat room, and a message board, making this a good place from which to plan a real or virtual trip.

D3. Homework Help

http://home.about.com/homework/index.htm

This is a general purpose site that provides access to pages that provide learning materials across a wide range of subjects. Included are eleven languages — Chinese, ESL, French, German, Hebrew, Hindi/Urdu, Italian, Japanese, Latin, Russian and Spanish.

D4. Jennifer's Language Page

http://www.elite.net/~runner/jennifers/index.htm

Jennifer Runner has the ambitious goal of covering every language in the world, so that people will be able to say at least a few words to anyone they meet, anywhere. That goal is still distant. As she says: "There are still several thousand languages out there that I don't have yet, so all additions and corrections will be very welcome!"

For the moment, the site offers translations of a select group of words and phrases. For example, forms of greeting are provided in more than 640 languages, and *Thank you* in more than 460. Another page provides translations of useful phrases like *Happy Christmas!* See also R6.

Burmese

D5. Seasite Burmese

http://www.seasite.niu.edu/Burmese/

This site is still in the early stages of construction and seems to be progressing slowly. Of the four main categories on the home page, only language and literature are alive, while art and culture are to follow. The literature section contains one short story only. In the language section, which is designed for students who have already completed elementary Burmese, only two lessons are alive and a third is foreshadowed. The first takes the form of a text in Burmese, a glossary, a translation, a section of grammar, a quiz and a test. The second lesson is designed according to the same pattern, but not all sections have material in them at the moment.

Chinese

D6. Learn Chinese: Audio Tutorial of Survival Chinese

http://pasture.ecn.purdue.edu/~agenhtml/agenmc/china/ctutor.html

This site, developed by Haiwang Yuan and Remy Guo of Purdue University, provides basic vocabulary online, covering greetings, shopping, dining, travelling, time, dates and weather. It has links to Art, Music, Scenery, Taste, Zodiac and Others. There is the promise of more to come, but the notation that the starting page was last updated in May 1995 is not encouraging! The site is a subset of Purdue's Multicultural Home Page, which offers material developed by students for a variety of countries.

D7. Conversational Mandarin Chinese

http://chinese.ucdavis.edu/ccol.htm

This site, developed by Tianwei Xie from the University of California at Davis, provides a series of 15 sentence-based lessons, last updated in 1998. A feature is the powerful focus on speech, with soundbites for all the sentences in each lesson, and many of the answers required to questions. The first 14 lessons are divided into three modules: Listen and Learn, with brief explanatory notes attached to some of the sentences; New Sentences; and Speaking Practice. Lesson 15 includes a list of characters and some reading exercises. The practice module asks if students know how to say a list of things in Chinese, and allows them to check by listening to the model. Obviously, there can be no evaluation of performance in this system. In addition, speaking tasks are given (answering oral questions, or giving an oral presentation on a nominated subject) for which no feedback in the form of a model answer is provided. The reading practice in lesson 15 includes some written exercises. However, the work cannot be done online, and there is no provision for evaluation, nor even a look-up list of correct or model answers.

French

D8. Civilisation Française

http://www.cortland.edu/www/flteach/civ/

This site, developed by Marie Ponterio of SUNY Cortland, offers 20 illustrated chapters on aspects of French culture. Web sites relevant to each topic are linked, and appropriate films and books suggested. Audio and video are built in. The approach is to provide text on the topic, and to follow up with questions for which feedback takes the form, not of online scoring, but of an immediate lookup facility. The questions are not designed to test comprehension of the texts, but are more like general knowledge quizzes. Opportunities are provided to write more extensive French, but the only way of getting feedback would be to print it out and hand it in to a tutor.

D9. How to Pronounce French words

http://voicech.i-france.com

This site by VoicEch offers a database of 10,000 of the most used French words spoken by a native speaker. Some samples of words can be tried without cost. Clicking on the word produces a soundbite, which is limited to the word itself, not the word in the context of a whole sentence. The same service is planned for other languages. The cost is Ffr 495, which includes a CD-ROM.

Hungarian

D10. A Hungarian Language Course

http://www.people.fas.harvard.edu/~arubin/hungarian.html

This site, developed and maintained by Aaron Rubin of Harvard University, is a course of Hungarian for beginners. The site seems effectively to be finished. There is a reference to a possible Lesson 10, but the home page states that Lesson 9 will be the last. The current state of this lesson is that "some samples and exercises are still missing, but the material is all there". There is a promise that it will be completed soon, but since the last update was in December 1997... The site has a small section of links to online Hungarian-English dictionaries, a Hungarian pronunciation tutor and other sites of interest, but its focus is on teaching Hungarian. The course is an online textbook, made up of an introductory chapter on the alphabet and pronunciation, nine lessons and two review sections. Each lesson includes sections on vocabulary and grammar, and a set of exercises. These take the form of sentences for translation both from English and from Hungarian.

The feedback consists solely of look-up model answers with no marking or any other form of feedback provided. One extraordinarily generous gesture, however, is the often repeated invitation to confused learners to e-mail questions to the author. A Swedish course following the same pattern is under development (D18).

Indonesian

D11. Seasite Indonesian

http://www.seasite.niu.edu/Indonesian/

The site, for which Patricia Henry is the contact, offers a variety of categories on its home page. Arts and Cultures from Across Indonesia, News on Indonesia, and Links to Internet Sites on Indonesia, are all collections of links. Other categories include an interactive dictionary, vocabulary lessons around selected themes (some with sound), and material for reading and conversation. The section on Indonesian Grammar is the beginning of an online grammar textbook, and some of the material includes exercises with immediate feedback. The site also includes a section on Learning Indonesian in 7 Days which is adapted from the materials of Michael Bordt and Liswata Seram (D12). Apart from this, the site does not offer a course in Indonesian.

D12. Bahasa Indonesia in Seven Days

http://mbordt.webjump.com/bahasa8c.htm

This modest site by Michael Bordt and Liswati Seram is an online booklet aiming to teach a very basic level of Indonesian, of particular interest to people who plan to visit the country and want to be able to make some attempt at the language. The authors generously say that the whole text can be printed off with the appropriate acknowledgement. This is effectively a small on-screen phrase book with some cultural advice. It is divided into an introduction, the seven days of the title, and three appendices that provide a guide to pronunciation, advice on finding words in a dictionary, and a short list of English words with their Indonesian equivalents. It has no sound input, no interactivity and no exercises.

D13. Indolinx

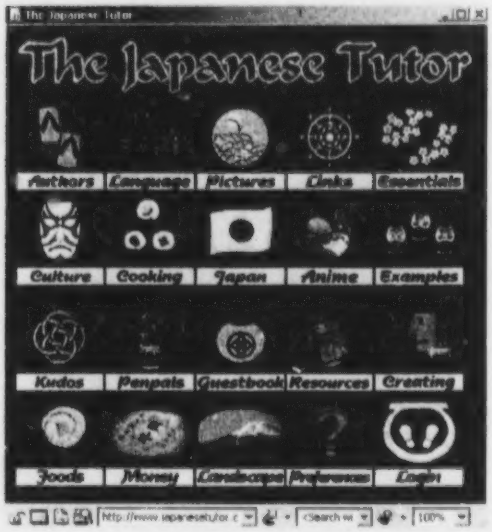
http://www.ansonic.com.au/indolinx/

This site, developed for Indonesian teachers in Australia by Peter Morrison at Warnambool College in Victoria, aims to provide a connection between Australian and Indonesian schools, and contains a wealth of professional information, chat, games, e-mail, tests, links, teacher material and student material. Online testing provides feedback in the form of a count of correct and incorrect answers and questions not attempted, with the wrong answers identified with a red cross. Frequency data for each possible response to each question also give the questions in full and the alternative answers. A feature is that the names of the top students are printed out. The results can be e-mailed to the tutor. A further activity is interactive story writing in Indonesian. Students' work can be submitted to the Webmaster and displayed. Indolinx was a pioneering site in what has become LOTElinx (Q7).

Japanese

D14. The Japanese Tutor

http://www.japanesetutor.cc/


The Japanese Tutor
The Japanese Tutor
Authors
Language
Pictures
Links
Essentials
Culture
Cooking
Japan
Anime
Examples
Kudos
Penpals
Guestbook
Resources
Creating
Foods
Money
Landscape
Preferences
Login
http://www.japanesetutor.c
<Search
100%

This site, created by David Reed, a computer science major who spent two years in Osaka, is offered free. It has one of the most beautiful home pages on the Web, and includes a useful selection of links, listed in 15 categories, including 18 language sites. Although it sees its goal as teaching Japanese, it does not provide a formal Japanese course. What there is, is a guide to forming the characters, complete with animation to illustrate the strokes, and native speakers providing a model for the sounds. The other major contribution it aims to make centres on Japanese culture. It is hard to judge how useful the site is going to be here, because many of the categories it has created, though interesting, are empty or have very little in them. The site promises a great deal, but the time it is taking to achieve its goals may be another example of the problems that individual enthusiasts face on the Web.

BEST COPY AVAILABLE

Lao

D15. Seasite Lao
http://www.seasite.niu.edu/lao/lao3.htm

This site is in the early stages of development by Sam Manivong and Mark Williams. It includes categories on Culture (three live links, two of them to journals), Food (intended to be a collection of recipes, but almost entirely empty), Government (a link to the Lao Embassy and one to maps), History (an online history text), Images (some 45 plates of artwork) and Links. Although there are only a dozen items listed in this last category, one of them is the extensive Laos Virtual Library, maintained on Vicnet in Melbourne, which keeps track of emerging information about Laos worldwide. The language category has a section on the alphabet, with language lessons promised "soon". Since, like the rest of the site, the last recorded update was in 1999, progress appears to be slow.

Russian

D16. Russian Interactive Online
http://cosmicparrot.com.au/russian/

This site, created by Liz Terauds from Presbyterian Ladies College in Melbourne, covers the fundamentals of reading and writing using multimedia. Although in its infancy, it is an impressive example of a teacher using Flash and video streaming technology to produce interesting lessons for Russian. Five lessons have been produced. "How are you?" rehearses in a fun way seven different words for different responses to feelings; the Alphabet has particularly attractive graphics; Letter Sounds can be used to teach students to write their names; Numerals displays Flash at its best, and provides students with feedback to oral and written stimulus; and Writing lets students see the formation of letters through streamed video. If real world demands allow development of this promising beginning, this could grow into a valuable addition to the rather limited number of sites available for Russian.

Spanish

D17. Oaxaca Collection
http://www.aug.edu/langlitcom/mexico/oaxaca.htm

This site, developed by Claire Stracke of Davidson Fine Arts School and Richard Stracke and Pedro Hoyos-Salcedo of Augusta State University, is a collection of units for Spanish teachers and students on the people, culture, and language of Oaxaca. It is actively under construction, with new sections being added by the month. The front page is in English, but the various subjects available provide several pages of Spanish language cultural information with maps and photos. Included are materials for teachers and a vocabulary for the particular unit. Some units contain on-screen exercises in the form of two multiple-choice questions in Spanish to test comprehension of the text. Users can return to the text and take the (unchanging) test as often as they want. Some units have topics for free composition which presumably have to be handed in to the teacher.

Swedish

D18. A Swedish Language Course

http://www.people.fas.harvard.edu/~arubin/swedish.htm

This site follows the same pattern as Rubin's Hungarian course (D10) in offering an online language textbook. It is still very much under construction and currently includes only an introductory lesson on the alphabet and pronunciation, and four lessons, divided into vocabulary, grammar and a set of exercises with look-up model answers as the only form of feedback. More lessons are planned, but the site was last updated in August 1999, so it may be some time before the whole course is available. If this link does not work, try the link to the course in Rubin's Hungarian site (D10).

E. Grammar and grammar-based material

Sites in this section cover a broad range, from what are, effectively, online grammar books, which function simply as look-up reference works with no linked interactive work, to structured grammar lessons with exercises, the best of which are aiming to produce material that is contextualised and interactive. This section also includes the extensive category of grammar quizzes.

Various languages

E1. London Guildhall University Department of Languages

http://www.lgu.ac.uk/langstud/call/

This site provides interactive grammar material in French, Spanish and German, with the different languages taking different approaches to the material. French is essentially a grammar reference laid out by subjects, for example the present tense or adjectives, while German and Spanish are set out as sequenced courses, with the material divided up into weeks (14 and 15 respectively). All languages provide on-screen exercises. It features a hint function, whereby, after an initial incorrect attempt, it displays a few letters of the required answer. The home page provides information about the thinking behind the university's research into the CALL project and lists the types of exercises available. It is intended that the authoring software will produce the following forms: gap fill, gap fill with sound, either/or, multiple-choice, a mixture of either/or and gap fill, and verb tables. Other forms in the system include checking for errors, jumbled sentences, and identifying types of words (for example, all the adjectives in a piece of prose). For further details see H6.

E2. Virtual Language Class

http://www.nyp.edu.sg/flc/index.htm

Designed for Nanyang Polytechnic students and maintained by TSE Kwok Keung, but freely available to anybody else who wishes to log in, this site offers French, German, and Japanese in what the Foreign Language Centre calls "e-learning mode". The two categories available for each language are a small number of online lessons (these include some quizzes), and self-assessments, which come in a handful of levels each containing several sections. There is no structured order to the exercises — they are essentially a lookup resource. Currently, none of the languages has enough online lessons, or even self-assessments, to make up a full course (nor is the site designed for this). There is, however, a useful amount of material available, particularly in French. The centre has two formats for its quizzes which are in constant use. One tests verb conjugations while the other has a box for questions, and another box for the answer underneath, which can accommodate full sentences as well as single words. Other structures appear in the self-assessments — Cloze passages and crosswords notably. Vocabulary testing is accompanied by attractive graphics. Some quizzes sensibly have a limit on tries — two or three being common — but others provide no exit from the loop if the answer is not known. The site warns that the material has been tested thoroughly only for Microsoft Explorer 5, so it may be that problems with getting some of the quizzes to run stem from browser incompatibilities.

E3. Goethe-Tests

http://www.goethe-verlag.com/tests/index.htm

This site offers a series of tests in ten languages: Czech, Dutch, English, French, German, Hungarian, Indonesian, Italian, Portuguese and Spanish. A series of language puzzles can also be downloaded. Any of the languages can be chosen as the language of delivery, and any as the target language. For each language there are 100 tests, each with 20 questions. They take the form of a phrase or sentence in the language of delivery, followed by a translation into the target language, which includes a blank to be filled in. The test is made easier by the fact that the missing words are printed across the top of the page, with the test limited to matching each word to the appropriate gap. This would seem an ideal opportunity for drag and drop, but there is no way to do any work on-screen, not even typing answers into the blanks! Feedback consists of a look-up page of answers, with only the missing words given, not the whole phrase or sentence in its complete form. There is no score. There is no obvious sequence in the tests, nor is there any teaching material related to the questions that might throw light on the point being tested.

E4. WELL Language Exercises

http://www.well.ac.uk/languageExercises/

The WELL Project has created an online language testing system to enable participating institutions to create tests for their students. Eight universities have collaborated to produce about 10,000 questions in French, German, Italian, Spanish, ESOL, Portuguese, and Dutch. While interested users can try out the system by logging on as a guest student or tutor, full access is restricted to any UK HE institution that submits a set of 100 questions on an agreed topic in a given language. Membership allows users in that institution to access all resources in all languages. Members can use the database of Cloze and multiple-choice questions to create their own tests. They can choose the number of questions, when the test is accessible to students, the type of feedback provided, and whether the exercise is formative or summative. Graphics or audio files can be included. Questions are fill-ins, often with a dropdown menu of choices, with single word answers required. Feedback takes the form of a score, and a printout of every answer with an indication of whether it was correct or incorrect. For incorrect questions (or questions that have not been attempted), the correct answer is displayed. The system also provides tutors with a record of results.

English

E5. Guide to Grammar and Writing

http://webster.commnet.edu/grammar/index.htm

Prepared by Charles Darling for English courses at Capital Community College, Hertford, Connecticut, and for the general online public (linking is encouraged), this is an extensive site dealing with the grammar of English. It is not a formal course in grammar, but more like a grammar reference, with a whole list of articles grouped, with no obvious sense of sequence, into Sentence, Paragraph and Essay sections. The articles are indexed to allow users to locate specific items of interest. A selection of Web sites relevant to English writing is provided, with a collection of bloopers for light relief. The site includes over 170 computer-graded multiple-choice quizzes (CGI or JavaScript) to test knowledge of grammar. They can be taken at the end of the appropriate article, or be randomly generated. Most of the quizzes are internal creations, but some have been imported from the work of outside contributors. Not surprisingly, no single description of the feedback provided is possible, since it seems to vary with the different tests that the site uses. Not all tests provide an overall score, for example, nor do they all print out the correct answers. In general, though, correct and incorrect responses are signalled in some way. The traditional tick or cross appears in some tests, but an amusing variant is a smiley or a cartoon of a latter-day Sisyphus pushing a boulder up a plane. The more helpful tests provide the correct answer when the response was wrong. In some cases, explanatory material is added to the feedback, and/or an explanation of the point at issue can be looked up. An attractive feature is that grammar questions can be sent into the site, though enquirers are asked to check the Grammarlogs first to see if an answer is already available. The site claims to post answers within a day or two at most.

E6. Chemnitz InternetGrammar

http://www.tu-chemnitz.de/phil/InternetGrammar

This site offers a grammar of English designed by Angela Hahn as a hypertext learning environment, and is part of a research project at the Chemnitz University of Technology. The whole project is designed for university-level language teaching and in-service teacher training. It is still under development, but is already substantial. Since the target group is advanced learners of English whose native language is German, and the approach contrastive, it might sound of limited interest. But the grammar is entirely in English, and a striking feature is the database of authentic examples of English — including oral English, with all the incoherence that the spoken language can contain — which are used to support inductive language learning in the Discoveries section. At the same time, the site offers a description of the grammar to support deductive language learning in the Explanations section. In either case, there is a set of interactive online exercises (multiple-choice and fill-ins) which are intended to provide, not only feedback, but also appropriate guidance through the program. The feedback can be idiosyncratic, with students invited to do the exercise again if any of their responses were wrong. The program does not, however, always provide feedback on each question, though some exercises do opt for a green tick or a red cross in each case.

E7. Going on a Grammar Safari

http://deil.lang.uiuc.edu./web.pages/grammarsafari.html

This site, a sub-section of DEIL/IEI Lingua Centre (B6), starts from the proposition that real English is a jungle compared with what students find in the safe confines of grammar books. It sees the Web — "a vast, ever-growing, always up-to-date corpus of language ranging over an inexhaustible range of topics, geographic areas, and users" — as an excellent place to experience English in its natural surroundings. The documents it provides have not been specially collected for ESL study, nor do they offer grammatical explanations, but they do give access to hundreds of examples of any selected English word as used in authentic communication.

French

E8. French Grammar Central

http://globegate.utm.edu/french/globegate_mirror/gramm.html

This subsection of TennesseeBob's Metasite (R12), is a substantial collection of links organised, with the help of Sandra Howard, into 13 categories, such as Adjectives, Articles and Determiners, or Nouns. The number of links claimed is over 400, but this is slightly misleading, in that several links are to different pages in the same online grammar such as French 306 from Washington State University. Nonetheless, there is a huge amount of material here, and a thorough search of the site would reveal a lot about what is available in this area. An attempt has been made to provide brief descriptions of the sites, but these are not always comprehensive so further checking of what each link contains might be necessary.

E9. Synapse Développement

http://synapse-fr.com/

Although this is a commercial site which lists material for sale, it includes sections on language. The section on the revision of the agreement of the past participle is very limited in scope, but there is also a manual of grammar entirely in French which provides more than 200 pages of explanation divided into six very general categories. It is an online textbook with hyperlinked key words, but no exercises.

E10. First Year French@ut Austin

http://www2.sp.utexas.edu/fr/student.qry

This site, a subset of French at Austin (A1), provides grammar drills organised into 14 dossiers, each containing a varying number of exercises, with each of these in turn providing a set of questions on a given structure. The format is fill-in, with the answers usually taking the form of a word, but sometimes of whole sentences. The exercises are batch corrected, with the work returned for completion if there are any blanks. Feedback consists of displaying the question, the student's response, and the answer required, but with no indication whether the response was right or wrong. No total is provided, but there is a general message, which states that the exercise has been completed — sometimes even successfully completed — independent of whether the responses were right, wrong, or even meaningless! By contrast, another Austin site, *Tex's French Grammar* (E11), displays the question, response and required answer in the same way, but puts a green tick or a red cross next to each response to make it clear which were right and which wrong. One of the advantages of not scoring individual questions may be that it makes it easier to set questions that require sentences in reply that cannot be fully controlled. The answer on display then becomes a suggested model answer, not necessarily the correct answer. The collection makes up an extensive database of grammar work online. While the site is intended primarily for the use of students at the University of Texas at Austin, it is freely accessible. Use of the site for commercial gain is not allowed, but non-profit organisations wanting to use its materials are asked to inquire by e-mail.

E11. Tex's French Grammar

http://www2.lamc.utexas.edu/frgr/

A further useful site from Austin (A1) calls itself *la grammaire de l'absurde*. It combines explanations with surreal dialogues and cartoon images, but beneath the zany appearance it is essentially an online reference grammar, organised in a traditional way, with grammar items explained in English, exemplified in a dialogue, and tested in self-correcting, fill-in-the-blank exercises. The special feature is that the illustrative sentences refer to the love story of Tex and Tammy, two Texan armadillos, and a supporting cast of similar characters.

E12. QCM en Français

http://www.ciel.fr/scripts/fastsql.exe?script=/qcm/qcm&id=1

This site, developed by Philippe Chataigner, is a very small self-testing part of a larger site that provides information about the Centre International d'Étude des Langues in Brest, and the courses it offers. It takes the form of a set of questions in several grammatical categories with one word missing (some of them famous quotations) at four levels of proficiency from beginners' to advanced. The coverage is not extensive with each section offering 25 questions in total. The program looks more like a placement test than anything else, except that no evaluation of overall level is provided. The format is to select a missing word from a sentence from a drop-down multiple-choice list. The answers are marked at the end. Feedback consists of a full printout of the original, with the missing words in green where they were correctly provided, and in red where the student's response was incorrect. Since the original incorrect responses are not printed out, no comparison with the correct answer is possible on-screen. No total is provided.

German

E13. The German Electronic Textbook

http://www.wm.edu/CAS/modlang/grammnu.html

This site, developed by Gary Smith, is divided into three main categories — grammar, pronunciation and vocabulary. The section on pronunciation explains how German vowels and consonants are pronounced, with the help of sound input. The new section on vocabulary is essentially a look-up database: it can be searched by individual word in English or German, or wordlists can be displayed in categories, like, for example, "animals". The substantial section of the site is an online textbook, providing an account of the rules of grammar with examples. It is not a structured course, but a lookup reference book. It is well laid out, though not all the colours work equally well. Grammar is divided into ten categories, each of which contains several sub-categories. A Practice button allows the material to be tested, essentially by fill-ins. Feedback consists of colouring correct responses green, and incorrect responses red. The correct answers can be displayed — in yellow — by clicking on the incorrect ones.

E14. Studienbibliothek

http://www.interdeutsch.de/studien1.htm

InterDeutsch

This site — a subset of Interdeutsch (C11) — offers an extensive range of well-designed interactive exercises, including games, grammar, comprehension, and phonetic and semantic exercises, at three levels from beginners' to advanced, all clearly laid out with instant feedback. A good example of what is available asks students to listen to popular songs, and then provides a transcript and creative interactive exercises related to the material. This site is particularly well laid out, user-friendly and easy to navigate using simple but effective graphics.

BEST COPY AVAILABLE

Russian

E15. Russian Web Tutor

http://www.auburn.edu/~mitrege/RWT/welcome.html

This site, developed by George Mitrevski at Auburn University, offers an extensive range of Russian materials. The latest update on the first page is May 2000, but some sections have dates as late as September 2000, so they have kept their promise that it is a "work in progress". Sections include: Learn to Read Russian (this contains a collection of links to Russian Web resources at Auburn, including a gallery of icons displayed in colour), grammar tutorials, and grammar exercises, along with syllabuses and extensive vocabulary and grammar exercises relating to two textbooks used at Auburn, *Nachalo* and *Golosa*. The grammar tutorials — some two dozen in all — make up an online grammar text in 52 sections. Links to the relevant exercises are provided at the bottom of the page. Sound is used extensively. The more than 60 exercises can also be selected from the index. They are fill-ins with a variation on feedback. Clicking after an answer has been typed produces an instant response, which takes the form of replacing any incorrect letters in the answer with asterisks. This allows further attempts to be made with quite strong guidance about what is required. Clicking on the question mark next to the relevant question causes the correct answer to overwrite anything in the blank (if the original response is correct, nothing happens). No overall score is calculated.

E16. Interactive Online Russian Reference Grammar

http://www.departments.bucknell.edu/russian/index.html

The Russian site has been developed by Robert Beard as part of the Russian program at Bucknell University, Lewisburg. It naturally contains information about the courses at Bucknell, but its richness lies in the mass of links that it provides to many aspects of Russian culture. While not the only language resource available in the Russian Grammar section, an important feature of the site is the interactive online Russian Reference Grammar which is an ongoing project to provide a basic grammar of the language. It is a textbook, to which interactive exercises have recently been added. These require a response to be filled in on-screen. The correct answer can be called up, question by question, in a separate box, with some errors triggering a hint in the same box.

Spanish

E17. Más Arriba

http://www.trentu.ca/academic/modernlanguages/spanish/masarriba/

The humor in the title of this site by Gary Aitken of Tent University comes from the fact that it is an electronic workbook designed to accompany the Prentice Hall textbook *¡Arriba!* (see F3). However, it generously suggests that the exercise material might be adapted for use with other textbooks. It offers 24 lessons which are not teaching material but a series of tests. Cartoons illustrate the basic situations, and boxes provide for short answers or even complete sentences to be written in response. Currently, feedback consists of printing out model answers, but the intention is to create CGI links. Further work is provided by links to drills and self-checking exercises on other sites, including Prentice-Hall (F3), Juan Ramón de Arana's site (E19) and Sweet Briar (E20).

E18. Spanish 506 at Texas

http://www2.sp.utexas.edu/SP506/student.qry

This site provides grammar exercises for first year Spanish following the same structure as Austin French (E10). It is sub-divided into 22 main sections, each of which is typically 1-5 sub-sections, but can have as many as 12. This makes the database a considerable resource for testing grammar. The Spanish home page includes a section of grammar structures keyed in to the seven chapters of the textbook used in the course.

E19. Spanish Language Exercises

http://mld.ursinus.edu/~jarana/Ejercicios/

This site, developed by Juan Ramón de Arana at Ursinus College, comes with the idealistic quotation which might apply to all the Web developers who have made their sites available to all without charge: *¿Qué vale la instrucción que no se consagra al provecho común?* [*What is the worth of teaching that is not dedicated to the common good?*] In line with this generous approach, the site can be used by teachers and students from other institutions, and there is even a positive reply to suggestions about mirroring in the FAQ section. Since one interesting aim is to experiment with different forms of testing to see what the technology allows, other designers might find it useful to browse through what has been created. The site offers a reasonably extensive range of exercises in various formats, either for instructor-checking or for self-checking. The material is not designed to be comprehensive, nor is it sequenced in any way. Instead, this is a self-service testing site. The self-check exercises can be preceded by a short review of the relevant grammar point. Feedback is instantaneous, taking the form of an indication whether the response was correct or incorrect and a score. The correct answer is not always provided in response to an incorrect response. When a selection is required from a set of possible responses, say to a comprehension question, helpful explanations of why each possibility is correct or incorrect are often provided. An e-mail facility allows answers to exercises for instructor-checking to be sent to the tutor. These exercises include reasonably extensive pieces of free or guided composition.

E20. Spanish Grammar Drills
http://grammar.spanish.sbc.edu/drills.html

This site is maintained by Alix Ingber at Sweet Briar College, Virginia, which calls itself "the world's most wired women's college". The material is presented in six categories: Basic Parts of Speech, Basic Constructions, Indicative Tenses, Command and Subjunctive, Tricky Verb Constructions, and Pronouns. All the questions are laid out in a block on the page. Feedback consists of printing out the answers with a notation whether they were correct or incorrect, and a total score. The correct answers are not given, so students in error have to return to their books and/or keep on trying. This program generates different sets of questions on each attempt from what looks like a large database. The Spanish Home Page includes another section — a Spanish Writing Guide, which lists a small selection of problem words in Spanish, with examples of how to use them properly.

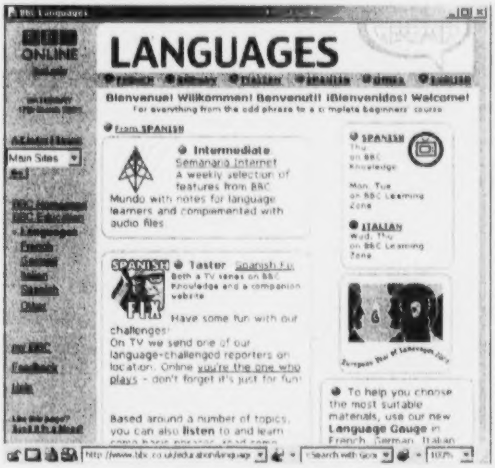
E21. Learn Spanish. A free online tutorial (see C20).

F. Publishers' sites

A rapidly growing category includes sites maintained by publishers to support their language textbooks. (Some sites that support other books are listed under "O. Sites for children".) In general, they provide access to Web tasks and, in some cases, to exercises and tests. Some sites are open access; others require passwords. An Australian site is being set up by Heinemann Australia (www.hi.com.au) which charges for password access. So far, it concentrates on science and geography, and is a protected database, but the online catalogue features no fewer than 15 languages, so it may be worth keeping an eye on developments. Similarly, Nelson Thomson Learning (http://www.nelson.com.au/) is at an early stage of development in German, Japanese and French, with Indonesian and Italian planned.

Various languages

F1. BBC Languages Online
http://www.bbc.co.uk/education/languages/index.shtml



LANGUAGES

Bienvenue! Willkommen! Benvenuti! ¡Bienvenidos! Welcome!

For everything from the odd phrase to a complete beginners' course

Intermediate Semanario Internet A weekly selection of features from BBC Mundo with notes for language learners and complemented with audio files

Taster Spanish Fi

Both a TV series on BBC Knowledge and a companion website

Have some fun with our challenges!
On TV we send one of our language-challenged reporters on location. Online you're the one who plays - don't forget it's just for fun!

Based around a number of topics, you can also listen to and learn

SPANISH Thu on BBC Knowledge

Mon, Tue on BBC Learning Zone

ITALIAN Wed, Thu on BBC Learning Zone

To help you choose the most suitable materials, use our new Language Gauge in French, German, Italian

The BBC is a major publisher of television and radio broadcasts (and now on the Web), but it is also a publisher in the traditional sense. Its site includes a shop which sells books, audio tapes and videos, not only for the four main languages, but for others like Greek, Japanese, Portuguese and Russian. This particular page is the index to the four main languages — French, German, Italian and Spanish — offered online by the BBC, often in programs with standard formats. The major offerings are based on TV series designed for adult beginners: *French Experience Online, Deutsch Plus Online, Italianissimo* and *Sueños Online*, each with an online supplement. Other programs include *France (/Germany/Spain) Inside Out*, with transcripts of the program; *French (/German/Italian/Spanish) Fix; Talk French (/Spanish); Make French*

BEST COPY AVAILABLE

(/German/Italian/Spanish) Your Business; and the *Travel Hour* site for France (/Italy/Spain). In addition, there are programs for *Leisure French (Italian)* and for the French soap *Saint Tropez. The New Face of Germany* accompanies four radio programs. The site contains a small number of pieces for English, and what promises to be a series of 100 weekly lessons in Welsh. Many sites provide online quizzes, which tend to be short, multiple-choice and in English. Feedback can take the form of instantaneous or of batch-marking. Some feedback gives only the score and the correct answers, but with no indication on-screen which responses were correct and which not.

F2. Heinle & Heinle

http://www.heinle.com/sites.html

This site gives access to several textbooks — eleven Spanish, nine French, four ESL (with one dictionary), and one Italian — with the Web material designed as a supplement to the published works. The ESL titles have a page of their own separate from the language titles. While there is a strong resemblance between the language sites — perhaps to be expected when, in so many cases, links and activities are maintained by Françoise Santore of the University of California at San Diego — they do not all follow a standard house style, but vary in the level of support or feedback provided. The standard function is to provide online access to structured Web tasks related to each chapter of the textbook. These are often laid out in an on-screen form, and a few have e-mail facilities that allow work to be sent electronically to the tutor. One site — *¡Tu dirás!* — displays a Cyberjournal with writing tasks (and occasional questions) which can also be e-mailed to the tutor. For about half the sites, the Web tasks are all that is provided in the way of online activities. The others make provision for on-screen self-testing as well. Two — *Poco A Poco* and *Quant à Moi* — also have a section of sound input followed by multiple-choice questions. *Voilà* mentions an information gap activity, but it is not live. What it does have is an e-mail whodunit *Meurtre à Cinet*. There is a CD-ROM for this game, but the site includes a series of worksheets which give an idea of what activities are involved.

Marking is almost always done in a batch at the end of the exercise. The most helpful feedback lists the questions, the responses given with an indication whether they were right or wrong, and the correct answer where an incorrect response was given. The least helpful simply reports whether each response given was right or wrong. *Siempre Adelante, Temas, Quant à Moi* and *Thèmes* include explanatory hints in the feedback for each question. In all cases, the results can be e-mailed to the tutor, though, rather oddly, this does not always mean that the Web activities can also be e-mailed. Since it is usually possible to look up the correct answers and then revise the first attempt, only 100% scores should ever be reported.

Web activities without e-mail

French: *Bravo!; Horizons; Interaction; On y va!; Sur le vif; Voilà!*
Italian: *Adesso!*
Spanish: *Abriendo paso; ¡A que sí!; Puentes; ¡Ya verás! Gold*

Web activities with e-mail

English: *Tapestry.*
Spanish: *¡Tú dirás!*

Web activities and on-screen testing

English: *Go for it!*
French: *Allons-y! Quant à moi; Thèmes.*
Spanish: *De paseo; Intercambios; Latinoamérica; Poco A Poco; Temas.*

On-screen testing

Spanish: *Siempre adelante.*

F3. Prentice Hall

http://www.prenhall.com/pubguide/index.html

Prentice-Hall's Companion Web site Gallery gives access to Web sites across a wide variety of disciplines, including modern languages. Of the large number of language books catalogued, only five companion Web sites in three languages are listed. Trial and error, however, unearthed an unlisted Web site for *Parallèles*, so there may be more. The sites are designed to complement the textbooks by reinforcing the structures, vocabulary and cultural themes in each chapter. All have a strong family resemblance, providing an internal message board and chat site, links to external chat sites, lists of useful links (there is significant emphasis on exploring the Web), teachers' resources and an extensive set of student activities. Where the latter are concerned, it looks as if standard software is provided on which the authors can draw, though not all choose to incorporate exactly the same exercises, nor even to give them the same names. The dominant activity is language exercises, presented as fill-in, multiple-choice or true/false questions. A Hint button is sometimes included, with hints varying from a reference to the relevant page of the textbook, to a sentence of explanation. Exercises are batch-marked at the end, and a report returned which gives an overall score in the form of a coloured bar chart showing percentages correct, incorrect and not attempted. The questions are printed out with the original response and the correct answer if an incorrect one was given (but not if the question was not attempted). There is also room in the report for comments to be provided for each wrong choice. These vary from a simple, but unhelpful, statement like "No", to a comment or question that throws some light on the error. Results can be e-mailed to the tutor, though only 100% scores should ever be reported, since the correct answers can be looked up and any errors corrected first. The other common section involves Web activities with sites to visit and questions to answer on the screen that can then be e-mailed to the tutor.

French: *Chez Nous; Parallèles*
German: *Treffpunkt*
Spanish: *¡Arriba!; Mosaicos; Conexiones*

F4. Harcourt College Publishers

World Languages
http://www.harcourtcollege.com/worldlanguages/

This site gives access to information about a range of ESL, French, German, Italian and Spanish textbooks produced by the publishers also known as Holt, Rinehart & Winston. No Web sites are immediately apparent for the ESL texts. Instead, the ESL page provides a catalogue of titles available, and a section on ESL resources covering links, ESL magazines, grammar, listening and forums. For the other languages, clicking on the book title opens the relevant Web page if one is available. With one or two exceptions, the sites have a strong family resemblance. A student forum is a common feature, and the core of the work is a set of Web activities with questions to be answered in forms on-screen and e-mailed to the tutor. A common feature is online quizzes, some of them with audio input. These take the form of multiple-choice, true/false, or fill-ins (these can run to full sentences). The program that delivers the quizzes to the various sites is not particularly user-friendly. For example, the same set of option buttons is not found at the end of each quiz, so that it can be difficult to work out how to get results. The standard feedback seems to be to print out the questions with green ticks or red crosses against each one that has been attempted, but a separate page has to be called up to see what the correct answers are and how they compare with the responses submitted.

During an earlier visit to the sites, the big division was between the majority that were password-protected, and the few that could be accessed freely. On a more recent visit, references to passwords still existed, but no textbook was protected by a request to login. Instead, the big division is between the majority of sites that include quizzes and the minority that concentrate on Web activities (*Portes ouvertes, Ciao, Da Capo, Hablemos español, Encuentros*). *Medical Spanish* is peculiar in offering quizzes and some links, but no Web tasks.

French: *Invitation au monde francophone; Paroles; Portes ouvertes.*

German: *Wie geht's.*

Italian: *Ciao; Da capo*

Spanish: *Así es; Atrévete; Hablemos español; ¡Dímelo tú!; Encuentros; En contacto; Medical Spanish.*

G. Magazines and creative writing

Sites in this section range from online magazines which simply offer reading material, sometimes in the shape of an ongoing story, to magazines that include a variety of information like selected bits of grammar, and forums that encourage creative writing and provide a place where the work can be displayed for anybody to read. A mechanism for exchanging ideas in writing is common to many sites in the form of bulletin boards, and explicit support for creative writing can also be found in many of the sites listed in other sections, such as the children's sites in section O.

English

G1. Exchange

http://deil.lang.uiuc.edu/exchange

The online magazine *Exchange* is a subset of the DEIL/IEI Lingua Centre (B6). It aims to provide an opportunity for non-native English speakers to express themselves through the use of English, and to create a source of knowledge and insight about different cultures.

G2. Language Fun Farm

http://www.teflfarm.com/

Developed by Sab Will and aimed at teachers of English, but of interest to anyone who wants to find out more about the language, the Language Fun Farm (or TEFL Farm) is more of a TEFL magazine that sets out to cover all aspects of ELT, TEFL and TESL with the emphasis firmly on fun. It is written in a style that is a long way from the staid academic language of many Web sites. It sees itself as a group of people who love discussing all aspects of English, not necessarily all related to teaching. The main categories are: For Teachers Only (reviews, interviews, articles); English for Pleasure (news, curios, poems, quizzes); TEFL Farmhands (editorials and information about contributors); Communicate (chat, discussion groups, newsletter, mailing lists, e-mail); and Useful Stuff (index to TEFL Farm, and links divided into 16 categories — not every sub-category seems to be live).

G3. Write Now

http://www.ihes.com/Sresource/writenow.html

Write Now is a magazine managed by International House Barcelona that offers students and teachers of English from around the world an outlet for writing. It claims to be a monthly, but the current edition is Spring 2000, and the archive has four issues from 1997, two from 1998, and one from 1999. The great variety of sections from the first two issues in 1997 — world news, news in brief, editorial, letters to the editor, sport, arts, technology, travel, education, cartoons, adverts, penpals, advice, feature, crossword — seem to have given way in recent issues to student articles only.

G4. PIZZAZ!

http://darkwing.uoregon.edu/~leslieob/pizzaz.html

PIZZAZ! (People Interested in Zippy and ZAny Zcribbling) created by Leslie Opp-Beckman is dedicated to providing a variety of creative writing and oral storytelling activities at levels from beginners' to advanced. Some are internal to the magazine, while others can be accessed through links. The activities are grouped into the general categories of Poetry, Fiction, Bag of Tricks, More Publishing Opportunities, and Other Teacher Resources. The resources can be used for in-class, non-profit use.

G5. The Secret Diary of Lotus and Rose

http://www.cityu.edu.hk/ls/lotus&rose/

This Hong Kong site created by Ken Keobke, Ann Beatty and Chiu Kin-wing aims to subversively stimulate an interest in English through the construction of a Web-based soap opera, in sixteen bi-weekly episodes, tracing the relationships of two young Hong Kong women and their friends. Their diary entries have hotword connections to literary and cultural references, idioms and grammar notes.

G6. E-mail English Now

http://www.e-mailenglish.org

Billing itself as an E-mail magazine for adult learners of English, the site offers an online magazine with letters from readers, articles with extensive notes explaining the vocabulary, a small section on a point of grammar, a crossword, and a vocabulary test based on the material in the issue. Back issues are also available online. The site includes a handful of lessons on telephone English, with the format being a downloadable MP3 sound file along with a PDF file of the material. This is very much a site that is oriented towards downloading. The material is copyright, but it can be used by teachers in their lessons with a suitable acknowledgement.

French

G7. Bonjour de France

http://www.bonjourdefrance.com/

This online magazine, subtitled *Le français à votre portée*, is an excellent source of materials, providing links to the regions around Brest and Nice (homes of the partners in the project), games, a site for contacts, a lot of short texts, and a useful amount of pedagogical material. Leaders of a large team of editors are Thierry Perrot and Françoise Kerrien. A feature of the site is that the approach is cumulative, with each number of the magazine dealing with a limited number of items — one piece of vocabulary, one limited point of grammar, one excursion — but it maintains an archive so that earlier editions can be consulted online. A series of texts are found in the editorial, the guest article in *Tribune*, and articles on Brest and Nice in *Découverte* (these may contain appropriate Web links). The last two sections of the magazine are text-based, interactive games with on-screen feedback, and a small selection of links.

The working centre of the magazine is *Apprentissage*. It offers short texts in French, with Real Audio, at four levels of competence from beginner to advanced. Many words are colour-coded and linked either to a vocabulary frame, which explains the word in French, or to a grammar frame, which explains the structure. Multiple-choice questions are attached to the text. Sections covered are idiomatic expression, a selected area of vocabulary, and a point of grammar complete with a quiz. There is also an extensive series of Web exercises based around a single theme, which presumably have to be handed in to a tutor, since there is no provision for dealing with the output on-screen. The site uses online multiple-choice quizzes extensively — not just for the grammar section — scoring the responses in a batch at the end. Feedback consists of an overall score, an indication of whether each response was right or wrong, and the printout of the correct answers. The answers submitted, however, are not displayed, so it is not possible to compare the wrong response with the required answer. A neat feature is that other scores — some of them with the names of the students involved — are printed out on the screen.

German

G8. Deutsch Lernen mit Jetzt Online

http://www.goethe.de/z/jetzt/

This interactive site produced by the Goethe Institut provides a variety of exercises and games based on the online youth magazine *Jetzt*, with a focus on reading and writing. The site is designed for self-access and independent learning, but it contains material that teachers might want to use in their own classes and includes a forum for teachers. It offers authentic material in the form of unaltered selections from *Jetzt* of particular interest to young learners. Some words are hyperlinked to journeys across the Web, to tasks, or to explanations. Students can consult an online dictionary and grammar. There are also writing competitions with prizes, a chat section and a message board. Since everything is in German, this is a challenging site that is not intended for beginners. Recommended prerequisites are 100 hours of learning and the ability to read a simple text in German.

Spanish

G9. Tecla

http://www.bbk.ac.uk/tecla/

This magazine for learners and teachers of Spanish is a joint production of the Spanish Department at Birkbeck College and the Spanish Embassy in London. Since it appears regularly — weekly for a large part of the year — there is now a very extensive archive online for 1994–2000. It is rather forbidding in appearance, with masses of text on-screen, all devoid of graphics or colour. It is also not interactive in any way nor has it developed any Web activities. The magazine appears to have standardised recently on three main sections. The first presents the texts. The second is an extensive series of activities related to the texts, including tests of reading comprehension, factual knowledge and spelling. The third is a set of on-screen answers to the questions. The site could be used by learners, but the material could also be helpful for teachers as a download for distribution in class, a use which is explicitly permitted.

G10. Latinworld

http://www.latinworld.com/

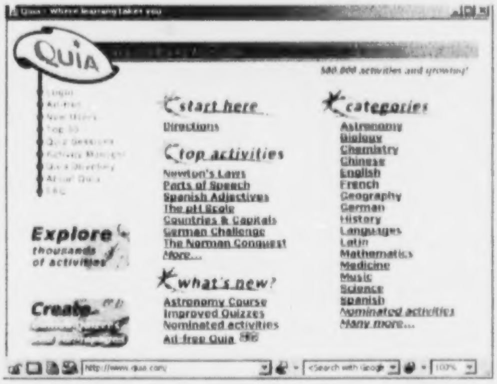
This site describes itself as the premier search engine for Iberoamerica and the Caribbean. It is largely a directory of Web resources for Latin America and the Spanish-speaking Caribbean, with links provided in a few named categories like news, music, cybercafes, radio stations and the bookstore. The site also provides a small online magazine where Spanish and English dominate, though Portuguese features in sections on Brazil. Current articles are featured on the home page. The Latin Page of the Week includes an English translation of the original material.

H. Tools

One of the happiest developments on the Web is the provision of templates for quizzes — the majority of them free — that can be used by teachers who would like to incorporate exercises into their own sites, but who do not have the expertise or the time to design their own. The fact that the resulting quizzes are appearing in increasing quantities is a clear indication of the usefulness of the software. In addition, some of these sites are an invaluable source of materials that have been created using the templates, and that are made available for all to use in the spirit of generous sharing that still characterises a lot of the Web.

H1. QUIA

http://www.quia.com/


Quia - Where learning takes you
Quia
500,000 activities and growing!
start here
Directions
top activities
Newton's Laws
Parts of Speech
Spanish Adjectives
The pH Scale
Countries & Capitals
German Challenge
The Norman Conquest
More...
what's new?
Astronomy Course
Improved Quizzes
Nominated activities
Ad-free Quia
categories
Astronomy
Biology
Chemistry
Chinese
English
French
Geography
German
History
Languages
Latin
Mathematics
Medicine
Music
Science
Spanish
Nominated activities
Many more...
Explore thousands of activities
Create
http://www.quia.com/
<Search with Google
100%

This is a wonderful and very user-friendly site — the name stands for *Quintessential Instructional Archive* — developed by Quia Corporation (founder and CEO Paul Mishkin) to create quizzes and games in several languages. It is a magnificent resource for time-pressed teachers and a mine of exercises for students. An important part of what it offers is ready-made examples for instant use, provided by teachers from all over the world, who are encouraged to make their work generally available. The variety of educational services available includes a directory of thousands of online games and quizzes in more than 40 subject areas (claimed to be the best taken from more than 200,000 activities already created); tools for creating online quizzes; quiz administration and reporting tools which provide information on things like the class average, the hardest question, and the most frequent answer to any question; and free teacher home pages. Its templates allow the creation of 12 different types of online games including flashcards, matching, memory, word search, hangman, challenge board, and a quiz-show style trivia game. Examples of some feature on-screen, and others are a click away. Scavenger Hunt even allows for an embedded Web address to give access to the information that is being tested. While the site is

BEST COPY AVAILABLE

educationally general purpose, it offers activities in 15 languages, including rarer ones like Turkish, Esperanto and Jersey-French. The total number of activities claimed in the languages section is 605, of which 218 are in French, 215 in Spanish and 73 in German. The site claims to have created games and quizzes to cover the vocabulary in 20 Spanish, 19 French, and seven German textbooks in common use.

The Quiz Editor templates make it possible to create multiple-choice quizzes. The basic format shows all the questions at once, and always in the same order, and the quiz is scored in a batch at the end. More interestingly, the Java quiz runs as an applet, and displays multiple-choice questions selected randomly out of a question pool. Students answer questions one at a time and receive immediate feedback after each response.

H2. Hot Potatoes

http://web.uvic.ca/hrd/halfbaked/

The Hot Potatoes suite was designed at the University of Victoria by Stewart Arneil, Martin Holmes and Hilary Street, and is still under active development. While it is not freeware, it is free of charge for non-profit educational users who make their pages available on the Web. Other users can buy a licence. The suite includes six applications, enabling the creation of interactive multiple-choice, short-answer, jumbled-sentence, crossword, matching/ordering and gap-fill exercises for the Web. Tutorials on how to use the program are available in a handful of other languages. A small selection of sites from around the world that use the software, including a couple of dozen language sites, are listed.

H3. Headlines-Makers

http://lang.swarthmore.edu/makers/

This site has set out to provide educational institutions with a series of tools that allow them to create a range of exercises that can then be stored on their own servers. These include a glossary which equips online texts with a commentary; Cloze tests; two column matching, and matching with drag and drop; multiple-choice including true/false; drag and drop words into the appropriate place on-screen; ordering scrambled sentences; and a memory game with tiles.

H4. Puzzlemaker

http://www.puzzlemaker.com/

This site creates puzzles and games such as mazes, word searches, cryptograms and fallen phrases online. With instructions that are short, easy to understand and self explanatory, the puzzles are easy to create and could be given to students as an online task. However, they cannot be completed online, so they need to be printed out for completion on paper. Since the site is designed for English language users, foreign characters are not supported, but teachers could set up the puzzles in a variety of languages using Roman script, print them out and amend them for use in class. This is an exciting tool for teacher and students alike. Though it can be accessed directly, Puzzlemaker is one section on the much larger site Discovery School (http://school.discovery.com/schoolhome.html) which has as its slogan "Fresh ideas to enhance teaching". The site includes a student channel, a teacher channel, and a family learning store with educational items for sale. It is brightly laid out and contains a variety of material of interest to school students.

H5. Funbrain

http://www.funbrain.com/

Claiming to be the "Internet's #1 site for K-8 teachers and kids", and now part of the Family Education Network, this is basically a collection of quizzes and games, mainly in arithmetic and words, but with some work in areas like geography or musical notes. Quizlab is a facility to create quizzes. Teachers have to sign up to use the program and to create access for their students, but membership is free.

H6. London Guildhall University Department of Languages

http://www.lgu.ac.uk/langstud/call/

This site (see E1) has now developed an authoring package that enables teachers to produce Web pages containing interactive language exercises that reflect their own teaching requirements. The exercises created using the program have been tested and evaluated by teachers and students. All the teacher is required to do is type text on to a screen, follow some simple instructions to indicate which words or phrases are to be used to form the questions and then save. The program automatically writes all the necessary HTML formatting tags and produces the other necessary files, and presents the author with a completed set of Web pages containing the interactive exercises. These may then be integrated into an existing Web site or distributed to students on floppy disk or CD-ROM. The cost of an institutional licence is £150 + VAT.

H7. WebPractest

http://www.wm.edu/CAS/modlang/gasmit/webpractest/

This is Gary Smith's software for creating the self-correcting exercises and tests that he has on his own site (E13). It is freely available for non-profit users, but he would like teachers to send him the tests that they create, so that he can set up a big archive like Quia.

H8. Web Author
http://ccat.sas.upenn.edu/plc/larrc/webauthor.html

CGI software running from the server at the Language Resource and Research Center of the University of Pennsylvania, creates the forms for Web Assisted Learning and Teaching of Languages. Various type of exercises are supported, including true/false, multiple-choice (which can include feedback), Cloze, scrambled words and vocabulary review.

H9. WELL Language Exercises (see E4)

I. Self-contained interactive tasks

Sites listed here provide opportunities for goal-oriented activities which either produce meaningful tangible outcomes for the user, or simply an opportunity for playing games using the target language. Many such activities are contained in sites listed in other sections which can be mined as a source of ideas.

Virtual cards

There are a great variety of sites on the Web that allow users to send free electronic postcards, many complete with moving graphics and sound. Variations on the theme are virtual flowers, virtual presents or virtual chocolate. Typically, the sites are linked to businesses, which might offer to send real flowers or other presents to the same recipient. For language students, the need is for sites in languages other than English, preferably with everything, including the instructions, provided in the target language.

I1. Virtual Cards

http://rats2u.com/calendar_ef/calendar_foreign.htm

This site is particularly useful, because it provides a wide variety of links to sites in 19 languages — Arabic, Chinese, Danish, Dutch, French, Finnish, German, Greek, Hebrew, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish, Swedish, Turkish and Vietnamese (one obvious absentee is Indonesian). This is a good place to start, although each language will need to be explored to find the site most useful for work such as sending greetings in the target language.

I2. Blue Mountain Cards

http://www.bluemountain.com

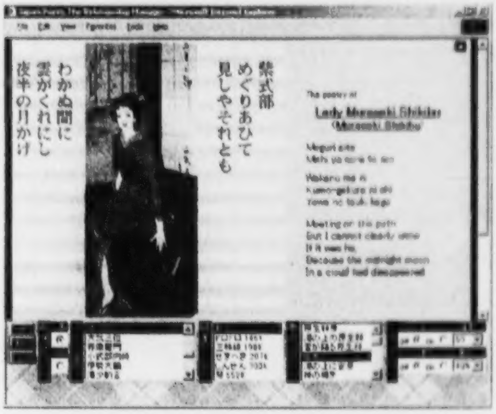
Among the host of providers of free e-cards, Blue Mountain has the advantage of providing cards in a handful of languages — Chinese, English, French, German, Italian, Japanese, Korean, Portuguese and Spanish. Clicking on German, for example, takes the user to a German site (http://www.de.bluemountain.com), so all the information and instructions are in the target language, as is the notification sent to the recipient.

BEST COPY AVAILABLE

13. Yahoo International Greetings
http://greetings.yahoo.com/

The international section of the Yahoo Greetings page has links to a selection of countries in Europe, the Pacific Rim and the Americas.

14. Japan Poem
http://www.japanpoem.com/



紫式部
めぐりあひて
見しやそれとも
わかぬ間に
雲がくれにし
夜半の月かげ

Meeting on the path
But I cannot clearly see
If it was he,
Because the midnight moon
In a cloud had disappeared

These are beautiful Japanese/English cards, with a Japanese picture and one of a set of 100 five line Japanese court poems with an English translation. Messages can be written in English or Japanese and sound is available.

Other activities

Various languages

15. Linguistic Olympics
http://darkwing.uoregon.edu/~tpayne/lingolym/

The Linguistic Olympics is a fun and educational problem-solving activity designed for secondary school students who compete by solving puzzles based on real languages that the students may never have learned — or even heard of! Some familiar languages like Czech, Swahili and Turkish are drawn upon, but also a range of more exotic languages like Babylonian, Chickasaw, Orkhono-Yeniseyan, Quechua, Archi, Old Persian and Shugnan. The puzzles are of varying degrees of difficulty, but all are solvable using ordinary reasoning and analytic skills possessed by secondary school students. No special knowledge or resources are needed. The site contains a selection of puzzles from the last three US Linguistic Olympics competitions, as well as other resources that may be valuable to secondary school teachers who would like to expose their students to the variety, complexity and beauty of the world's languages. The tests are printed out on the screen without a space for answering them. Anybody wanting to take them will need to e-mail the answers to Oregon for evaluation, which is returned by e-mail.

BEST COPY AVAILABLE

English

16. Makeover Studio
http://www.makeoverstudio.com/

This site provides the picture of a model that can be altered by clicking on different hairstyles and makeup. Of even more direct interest, users can send in their own photo and use the site to experiment with different looks. Possible uses of such a site would be to get beginners to learn the vocabulary of makeup, or describe the different personalities created by different looks, whether on the model or on their own pictures.

17. Treeloot
http://www.treeloot.com/punchit/index.html

This is a commercial site which offers the prospect of winning money hidden in a tree, by clicking on the right spot in a tree. There is more to it than that, of course; the site is basically a bill-board for advertising, offering incentives to visit sponsor sites. Some of the messages displayed on-screen are well designed, but there are not all that many ways of urging the user to have another attempt 100 times in a row, and the graphics are not good enough to constitute an interesting story in their own account. However, if meaningful language is what is needed to keep learners interested, this site certainly packs meaning.

18. Kodak Photoquilt
http://alts1.kodak.com/global/mul/photoquilt/millennium/

Part of the Kodak site, the PhotoQuilt of the Millennium is made up of a very large number of photos sent in to Kodak. Clicking on the quilt brings up the relevant photo, usually with a story of cherished moments, personal hopes or dreams. The invitation is not only to explore what others have contributed, but also to add a picture and story to the collage. The site is a good source of brief bits of reading for ESL students, and could also be used for their own writing as well as for other creative activities. A search function allows individual items to be tracked down.

French

I9. Les Dangers de Basile Citron

http://www.momes.net/domestique/index.html

This is one of the games from the large Momes site (O6) and is an illustration of the range of activities available. It uses a cartoon character, Basile Citron, and pictures of his disordered kitchen and bathroom to ask for comments about sources of danger. Users can not only send in their answers and read the official comment on each crazy element, but also have access to a long list of what other users have written.

I10. Indicateurs de Métros

http://www.subwaynavigator.com/

This is a French site, but it covers transports systems in more than 60 cities all over the world. It will provide information about how to travel from a chosen starting point to a destination, with an estimate of the time of the journey. The information can be provided in words, or in the form of a map of the system. One use of the system would be to set students the task of constructing a journey from one point to another. This is part of a large site maintained by the French transport system: http://www.ratp.fr/index.html

I11. Paris Match Birthday Issue

http://www.parismatch.tm.fr/

This is integrated into the activities of the Austin site (A1). Students are asked to call up the issue of their birthdate and comment on the cover. It has all sorts of potential for cultural, linguistic and historical activities.

German

I12. Cat Magazine

http://www.katzen-online.de/asp/home.asp

This German language site offers to produce a personal information page on the subject of cats, based on the information sent in by the user. It provides beautiful graphics and requires users to tick boxes related to their cat's characteristics, personality and lifestyle. While these sorts of sites are a vehicle for some form of advertising, they can provide motivating one-off activities on meaningful subjects for beginning students.

I13. Christkindl`s Weihnachtsseiten
http://www.weihnachtsseiten.de/2000/weihnachten.html

This is an attractive site providing texts and pictures on the theme of Christmas. A particularly attractive section is the Advent Calendar. A shop is included, so there are some commercial aspects to the site. An instructive feature of the site is that when English is chosen instead of German, the translation provides a gruesome indication of how far translation software still has to go!

Spanish

I14. Pasatiempos
http://cvc.cervantes.es/aula/pasatiempos/

This site, a subset of the large site maintained by the Cervantes Institute (C19), offers games at four levels: beginners', intermediate, advanced and superior. Some of the material is grammatical and is scored only in terms of the number of answers correct and incorrect, without the correct versions being presented. There is, however, a very extensive range of material available which would repay investigation.

BEST COPY AVAILABLE

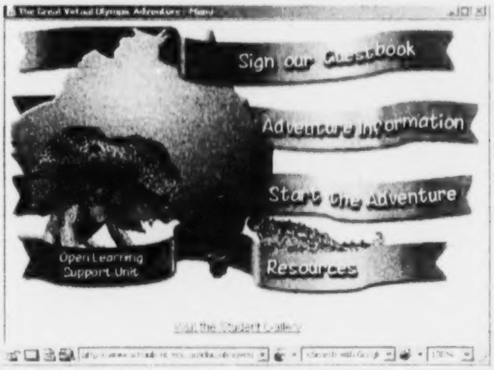
J. Web tasks

Only a few activities are listed here since Web tasks have formed one of the most obviously expanding aspects of Web learning over the past two years and can now be found in a wide range of sites, most notably in the publishers' sites of section F. These tasks have a particular interest when they are linked to a specific event like the Olympics or the Millennium, but, equally, sites of such topicality run the risk of becoming outdated rather quickly and disappearing from the Web.

English

J1. Eddie and Spike's Great Virtual Olympic Adventure

http://www.schools.nt.edu.au/olsu/olyadvent/menu.htm


The Great Virtual Olympic Adventure - Menu
Sign our Guestbook
Adventure Information
Start the Adventure
Open Learning Support Unit
Resources
Visit the Student Gallery

The idea behind this site is that Spike, a thorny devil, and Eddie, a frilled-neck lizard, have developed a project to encourage students around the world to study the history of the Olympic Games and to discover the excitement of the Sydney 2000 Olympic Games events. The project supplements a booklet sent to schools. The work does not have to be done online, but can be done on paper. Indeed, the screen looks like school worksheet, complete with lines. Students are asked to research the Olympic Games using the links provided, the Internet in general, books, magazines or any other media, and then to develop a plan which includes a summary of their knowledge about the Olympics, travel arrangements for getting to Sydney, a daily plan of events they would like to attend and a budget. Copies of completed plans can be sent to the Open Learning Support Unit, along with a photo of the participants who will be sent a commemorative photo of themselves with Eddie and Spike outside an Olympic venue. Certificates of Merit will be awarded where appropriate, and exceptional pieces of work may be published on the Web site.

BEST COPY AVAILABLE

German

J2. German Studies Exercises on the Web

http://www.uncg.edu/~lixlpurc/

The Home Page for Andreas Lixl features Internet projects such as German Studies Trails on the Internet, *KinderWeb* which is a collection of links (one in German, one in English) for children, Multimedia Language Center which is a collection of Web resources and links for eight UNCG Foreign Language Programs, and *Deutsche Kulturkunde*, which is planned as a Web-based German culture course. Two other sections, in a joint project with Richard L. Sutherland of the U.S. Air Force Academy cover Web tasks — 10 at elementary level, and 32 for all levels. They involve visiting a site and answering a series of questions, but the answers have to be written on paper and handed in physically since there is no provision for online forms, or for the answers to be e-mailed to the tutors. A final section lists a selection of exercises and teaching and learning materials by various authors available on the Web and covering German language, literature and culture, at levels ranging from beginner to advanced.

K. Webquests and simulations

These sites belong to a new and creative genre of Web activities specifically designed to involve students in experiential learning. They attempt to immerse the user, either singly or in groups, in substantial single or multiple tasks, usually with tangible outcomes.

General

K1. A Webquest about Webquests

http://edweb.sdsu.edu/webquest/webquestwebquest-hs.html

This site by Bernie Dodge has a simple goal — to teach about Webquests by taking visitors through one. The thought behind the site is that one way to gain a thorough understanding of the possibilities is to critically analyse a number of examples of Webquests, discuss them from multiple perspectives, and decide which is the best and why. This is a good place for beginners to get an idea of what is involved.

English

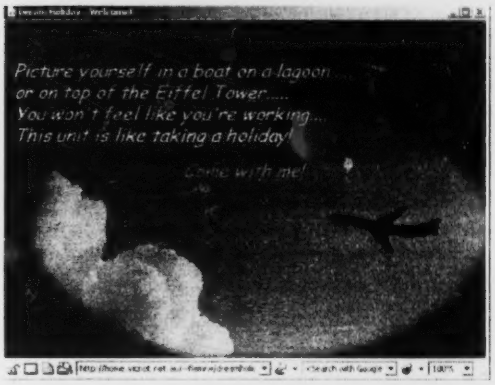
K2. Travelsim

http://deil.lang.uiuc.edu/travelsim/

This site by Douglas Mills of the University of Illinois at Urbana is a Travel Simulation Activity designed to give ESL students practice in speaking skills as they work together in class. This activity gives an idea of what it would be like to plan a trip to the Grand Canyon, even though it does not include all the steps required in real life. It is beautifully designed around a problem-solving task in which groups of students are given a sum of dollars to spend on various activities of their choice, by selecting an item from a drop-down menu. A nice touch is that students are given reports of what they have done along the way, with a complete version at the end, together with a facility to send a greeting card.

K3. Dream holiday

http://home.vicnet.net.au/~flemrw/dreamholiday/



Picture yourself in a boat on a lagoon....
or on top of the Eiffel Tower.....
You won't feel like you're working...
This unit is like taking a holiday!

Come with me!

Dream Holiday is a unit of work designed by Mex Butler for ESL and Adult Literacy students in a community education program. It unfolds with the story of one person's dream holiday to three different countries. There are links throughout the narrative which require students to participate either in research activities linked to the Lonely Planet travellers guide site, or in language-based activities on the use of tenses. A tutorial is included to help students consolidate their understanding of the different tenses. The research activities are designed to guide students through the information they will need in order to devise their own dream holiday. Once the students have completed all the activities, they are invited to research and write about their holiday. This unit of work can be done independently by intermediate level students, but can be utilised in a variety of ways with teacher direction in the classroom.

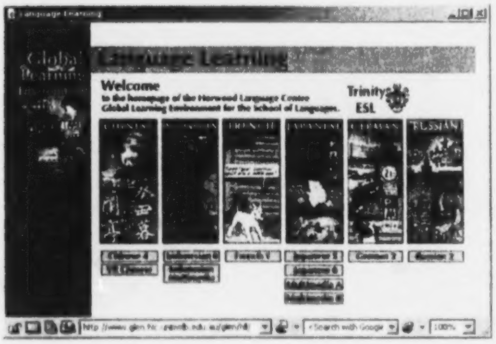
BEST COPY AVAILABLE

L. Cooperative ventures

This section contains examples of sites devoted to cooperative ventures between, for example, groups of students in a single course or, more extensively, in different countries. These sites do not provide learning materials that users can access but, rather, illustrate ways in which the Web can be used in language learning. Typically, groups of students collaborate to create something for the Web, and what they produce is then published on the Web for all to see.

Various languages

L1. Project-driven Foreign Language Learning
http://www.glen.hlc.unimelb.edu.au/glen/hll



to the homepage of the Horwood Language Centre Global Learning Environment for the School of Languages.

This site is the home of a project — reshaping foreign language learning through social and creative use of computers — directed by Robert Debski of the University of Melbourne, which aims to integrate multimedia tools into project-driven language learning. Teachers, students and different language groups collaborate in negotiated student work supported by a Web-distributed Global Learning Environment (GLE) created for the purpose. The secure electronic environment provides an electronic work space, electronic submission and distribution of resources, access to tools, private and group areas for collaboration, an e-mail facility (including mailing lists), and private news groups. Students share the outcomes of their work with worldwide audiences by publishing on the Web. The GLE home page provides links to Chinese, French, German, Indonesian, Japanese and Russian, and examples of what is being produced can be seen on the project Web pages for each language. The site includes several dozen projects from 1999, 19 of them in German alone. Content can focus on the target culture (Petra Kelly) or the home culture (restaurants in Brunswick Street).

For details of the project with an evaluation of the 1998 outcomes, see

BEST COPY AVAILABLE

http://glen.hlc.unimelb.edu.au/callproj/

The site includes six exemplary projects, one from each of the six participating classes (Chinese 4, French 1, German 2, Indonesian 4, Japanese 5 and 6). For further details of the project, see Debski's paper:
http://www.immi.gov.au/amep/reports/pubs/papers/debski.htm

L2. Cooperative Learning in Modern Languages

http://www.geocities.com/Paris/LeftBank/3852/cooplearn.html

This site, maintained by Pete Jones of Whitby Collegiate, Ontario, offers a range of cooperative learning materials, including games. Most are in French, but some German and Spanish versions have been produced in collaboration with partners in Germany and the USA, in a good example of cooperation across languages and continents. One of the sections on the site is a series of holiday pages which provide teachers with suggestions for appropriate activities and a collection of relevant links.

English

L3. Virtual Wedding

http://www.eng.umu.se/vw/Default.htm

This project, created by Patrick Svensson and Pat Shrimpton at the Department of Modern Languages/English at Umeå University in Sweden, uses the metaphor of a wedding to create cultural simulations, melding linguistics, literature and cultural studies. Its principal aim is to create a model that will incorporate an innovative and communicatively- and analytically- oriented use of information technology and virtual worlds into the study of English at university level. Students are cooperatively engaged in building virtual projects played out anywhere, from Jane Austen's England to present-day Sierra Leone. The virtual reality environment of the virtual wedding is one example of what can be done using the ActiveWorlds software suite (M1).

French

L4. Cyb@amis
http://www4.gu.edu.au/arts/mans/index.htm

This project, based at Griffith University, Queensland, has been designed to exploit the potential of the Internet to facilitate purposeful interaction between students in French immersion programs in Australia and Canada, and native speakers enrolled in French high schools. The means will be the development of a bilingual Internet magazine to which French students will contribute articles in English, and Australian and Canadian students articles in French. Students will give each other feedback, in the language of the article, on ways of bringing the material up to a publishable standard. Interaction is facilitated by means of Web-based tools, which have been developed specifically for this project, and which are illustrated on the home page. The principal objective of the project, apart from the production of an electronic magazine, is to improve students' written language.

The latest version of the site contains four sections in addition to Contact, which provides addresses for comments on the project. Information gives details of the project. Magazine will display the final version of the collaborative articles produced by the different international students, but is currently still empty. Articles in progress are password-protected and available only to teachers and researchers until they are published in the magazine. Editorial is the students' collaborative working and feedback area, and is password-protected. Resources contains useful links to learning resources, including information about the topics of the articles. For further details of the project, see Birch, Gary & Chrisina Poyatos Matas, "Immersion and the Internet", *Babel* 34(2), Spring 1999.

L5. Copains
http://student.dcu.ie/~copains

This site, entirely in French and maintained by Françoise Blin of the School of Applied Language and Intercultural Studies at Dublin City University, provides access to the uncommon area of scientific and technical French in the form of student projects and reflections. The site also includes exercises written with Hot Potatoes.

BEST COPY AVAILABLE

German

L6. *Odyssey* — A Net game by e-mail

http://www.goethe.de/oe/mos/odyssee/deindex.htm

Odyssey is a multi-player e-mail Net game designed by Ronald Graetz and provided by the Goethe Institute in Moscow. It requires two or three interested colleagues from other institutions anywhere in the world. Teachers indicate the learning level and age of their students and a preferred playing date, and they are then matched to other classes. The project is a detective game played in one 90 minute session every week. The individual classes do not know where the other groups are located, and have to find out in the first three weeks by asking questions and analysing information provided in students' writings. Over the last three weeks, the groups discuss issues concerning the new media and learning with the Internet. The aim is to motivate students by giving them responsibility for the learning and teaching process, with teachers in partner roles. They have to express themselves by exchanging information with authentic conversation partners and deal with real, unpredictable communication. In the process, students develop their understanding of other cultures. The site claims that the students become emotionally involved in the creation of the texts and assume responsibility for their acquisition of knowledge, that a higher level of accuracy than normal is achieved through a greater desire for linguistic and stylistic accuracy, and that students acquire a significantly extended vocabulary.

The Students' Workbook includes an introduction to the game, a framework for detecting where the other classes are, a world map, excerpts from the *Odyssey* in a version for young people, illustrations, comics, articles about the new media, and Internet addresses. The Teachers' Workbook contains didactic suggestions, a framework for planning and preparation, example texts for the first three weeks of the game, learning aims, methodological hints, a technical description of the prerequisites, a precis of the *Odyssey*, texts about the use of new media in foreign language teaching, important Internet addresses and an assessment plan.

L7. Windows on Austria

http://www.arts.monash.edu.au/german/austria_centre/student_project_2000_prelim/austria.htm

This collection of projects, developed by Ursula Makoschitz and her students at Monash University, currently offers 20 windows on different aspects of Austrian culture. The aim of the site is to raise awareness of Austria and familiarise users with various aspects of Austrian everyday life by means of links to newspapers, radio stations, concert venues and information about current cultural and social issues in Austria. The underlying learning philosophy is that without knowledge of the socio-cultural background of the target country, language teaching will remain on a purely structural level, and that intercultural reflection is possible only through an intense confrontation with the similarities and differences between the students' own country and the target country. The aim is for students involved in the project to improve their ability to use the language in a realistic communicative situation by developing contacts with information sources, and by engaging in correspondence by e-mail. An important goal is for students to get used to the Internet as a source of flexible, authentic learning material, which will be useful for others, and will constitute a resource base of course materials published on the Web and, therefore, available for use in secondary and tertiary language education. Those intending to become language teachers are exposed to an extensive range of authentic communication and teaching issues, based on experience of the value of learning by doing.

M. MOOS, MUDS and MUSHES

Sites included here provide the opportunity for text-based interaction in the target language with others the world over. They can be used to set up synchronous interaction with native speakers in authentic environments. They differ from chat sites (section N) in that users can move around different locations in the MOO and (in some) create objects to be left for other users. In the most recent development, users can communicate through a 3D avatar. To navigate a MOO, basic commands need to be known — either the standard English commands, or their target language and site-specific versions (for further information, see *Virtual Language Learning*). The following sites offer varying degrees of sophistication and user-friendliness. For users completely new to the environment, we advise navigating around Romantic Circles (M5) which is particularly easy to use.

Various languages

M1. Active Worlds

http://www.activeworlds.com/

Active Worlds is a constantly developing universe of virtual worlds, where citizens can meet and chat to people from all over the planet, explore virtual worlds, play online games, shop, surf the 2D and 3D Web, and build their own virtual home. Communication is possible in many languages, since citizens come from all walks of life and speak dozens of languages. Citizenship costs US$19.95 p.a. A free introductory tour is available.

M2. Active Worlds Educational Universe

http://www.activeworlds.com/edu/index.html

This site has been launched in response to demand from educators as an educational community that makes the Active Worlds technology available to institutions, teachers and students. The intention is that the community will allow educators to explore new concepts, learning theories and creative curriculum design, and discover new paradigms in social learning. Currently, there are over 80 educational worlds available in the AWEDU, along with some in the main Active Worlds Universe, where classes are taught, experiments performed and meetings held. Membership of AWEDU is free to staff members of an accredited educational facility or non-profit organisation, or students under the supervision of a staff member. Participants are required to participate regularly in AWEDU's community events and dialogues, and are encouraged to publish and present research and findings from any activities in the AWEDU.

M3. Moosaico

telnet://moo.di.uminho.pt:7777

Moosaico is a fantasy/role playing environment that anyone can access — users can login as a guest if they do not have their own user password. The most interesting feature is its multilingual capacities, which allow a user to specify the language they want to interact in. Choices include Cantonese, Catalan, Dutch, English, French, German, Hebrew, Italian, Japanese, Latin, Mandarin, Norwegian, Portuguese, Russian and Spanish.

English

M4. SchMOOze University

http://schmooze.hunter.cuny.edu:8888

SchMOOze University, one of the oldest and most successful MOOs for language learning purposes, contains MOOs for ESL/EFL learners with a focus on cross-cultural communication. They are, however, created with fun in mind, and are far from being stale or boring examples of the genre. SchMOOze University has hundreds of registered users in many countries and offers virtual campus facilities such as classrooms with tables and blackboards which can be scheduled for teaching sessions, and dormitories which students can decorate to their liking. Students also have access to language games and an online dictionary. The site has links to other ESL resources.

M5. Romantic Circles

http://www.rc.umd.edu/rchs/

This site, for which Neil Fraistat, Steven E. Jones, Carl Stahmer are general editors, is not devoted to language learning but to the study of Romantic literature and culture. It is included because it is very user-friendly, and is recommended for novices who want to familiarise themselves with the concept of a MOO. A tour is available as an introduction to the site.

French

M6. Le MOO Français
http://www.umsl.edu/~moosproj/moofrancais.html

This MOO, hosted by University of Missouri-St.Louis, is a French virtual community for people to "meet, exchange ideas, improve their language skills, chat and have fun!" Some instructions are in English, but the site is aimed at people with at least basic French. The Telnet address is telnet://admiral.umsl.edu:7777, but it requires a user name and password. Basic instructions and commands within the MOO are given on the home page.

M7. MOOlin Rouge
http://cmc.uib.no/~fransk/index.html

This MOO created by the French Institute at the University of Bergen is largely in French although some help commands are given in English. HTML chat can be accessed at http://cmc.uib.no:9000, and telnet access at telnet://cmc.uib.no:9999. Connection is available as a guest.

German

M8. Morgengrauen
http://mg.mud.de/online/

This is a tongue-in-cheek fantasy environment all in German with lots of relevant resources, including a list of *Stammtische* in various German cities. The site is very user-friendly and includes a list of further German MUDs as well as some in English. Since it was not especially created for language teaching purposes, it is a challenging site to use, but the reward lies in its authenticity.

Italian

M9. Little Italy
http://kame.usr.dsi.unimi.it:4444

This MOO provides a sophisticated all-Italian environment which describes itself as a living laboratory for the realisation of a distributed, digital world. Its physical location in Milan gives it an authentic flavour. The MOO can be accessed at telnet://little.usr.dsi.unimi.it:4444

Visitors can login without a specific account as *connect guest*.

Spanish

M10. MundoHispano
http://www.umsl.edu/~moosproj/mundo.html

Created and founded by Lonnie Turbee, directed by Theresa Minick and hosted by the University of Missouri-St.Louis, MundoHispano creates virtual cities from the Spanish-speaking world, where intermediate or advanced students can interact in a multilingual environment (the MOO uses both English and Spanish). Users can learn about Spanish cultures, and even create their own virtual home. Access is available at telnet://admiral.umsl.edu:8888 using *connect guest* to login.

Professional development

TAPPED IN (see Q1)

N. Chat sites

Chat facilities, through which users can interact in real time, are available in a large variety of languages. They tend to be more user-friendly than MOOs (although this varies greatly), but do not offer the same scope for creative interaction given in the best MOOs. Chat facilities are included in many of the sites described in other sections. A major recent development, destined to revolutionise the genre and replace written communication, has been the appearance of voice chat and voice bulletin boards.

German

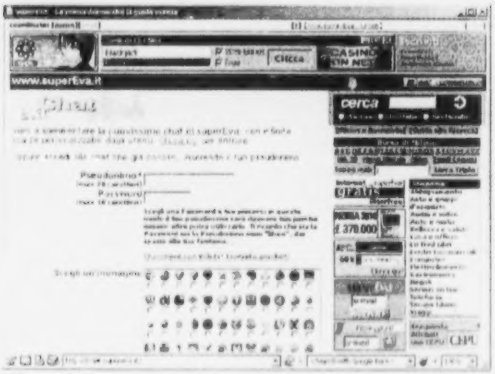
N1. Planet Talk
http://www.allegra.de/talk/index.html

This is one of the most user-friendly chat sites on the subject of love and fun in Germany. There are people online at all hours offering instant communication opportunities with native speakers. The best aspect of this site is that it supports extended characters, so that the writing is by and large accurate. Interaction tends to be very fast if many people are online, but users have the option of choosing to respond just to one person. These sorts of sites are ideal vehicles to expose intermediate students to the specific netspeak discourse of young people in the target language, and can lead to meaningful interchanges. When testing the sites, for instance, I got a severe grilling from one of the 22 people online on whether I was really in Australia, and had to give information on population, animals and geography.

BEST COPY AVAILABLE

Italian

N2. **SuperEva**
http://chat.supereva.it/



This site provides an alphabetical list of a large number of Italian chats from which it should be possible to choose something of interest. Available chats are also grouped by general categories, like leisure or health.

Spanish/English

N3. **Espanglish Chat**
http://members.xoom.com/_XOOM/WisLiliana/Resources/Chat.html

This is a bilingual English and Spanish chat room which can be used to practise Spanish and help Spanish speakers learn English — or, of course, vice-versa. There is a downloadable plug-in that allows for the capacity to converse in voice chat. Other sites linked to Espanglish Chat are two Spanish language chats — *Ciudad Futura* and LatinTop Chat.

BEST COPY AVAILABLE

0. Sites for children

This section brings together sites that are designed for children, but which provide a wealth of fun activities for learners of any age. Users need to be aware that, although the content may be pitched at a particular age group, sites designed for native-speaking children can be linguistically challenging for adult learners. A delightful aspect of most of them is their feel for children, as well as the beautiful colour graphics used. Included is a site devoted to the *Chronicles of Narnia* (03) and another to the creations of Dr Seuss (04). These are only two of the myriad of sites devoted to popular books — Harry Potter has many, as does Lewis Carroll — which are obvious ports of call for children who are already reading the texts. Sites for children's authors in many languages would be worth tracking down; in French, for example, a couple of moments of search turned up several sites for *Astérix, Le Petit Prince* and *Tintin*, some of them in multilingual versions. Similarly, television and film provide the inspiration for other children's sites. A BBC site is listed (05), but there are others from the ABC, Disney and Sesame Street.

Various languages

01. Kidlink

http://www.kidlink.org/

Kidlink is a non-profit organisation which aims to involve young people up to the age of 15 in a global dialogue, with the help of volunteers who are mainly parents or teachers. The main means of communication are a large number of mailing lists and real-time interactions like chats, but various types of Web-based dialogues, ordinary mail, fax, video conferencing and ham radio are also used. An art exhibition is available online. The site is available in 19 languages and offers activities in Arabic, Catalan, Chinese, Danish, English, French, German, Hebrew, Icelandic, Italian, Japanese, Macedonian, Norwegian, Portuguese, Romanian, Saami, Slovenian, Spanish and Swedish. The site claims that participants come from 137 countries across all six continents.

English

02. Interactive News for Kids

http://ink.news.com.au

Designed by the Institute for Interactive Multimedia at the University of Technology Sydney, and supported by News Limited, iNK is a virtual newsroom where students can learn how to publish a newspaper online, with the help of tools developed by the institute, and take on the role of reporter, editor, chief of staff, cartoonist and photographer. The system can be used by schools or groups to learn about newspaper publishing, and to create online news as projects. Students and teachers from participating schools don't have to worry about the nuts and bolts of Internet publishing — they need only to submit words and images and the rest is done automatically. A virtual tour shows how the system works, and allows visitors to use the iNK system to create their own iNK personal edition, while learning about the different roles and processes in a news team.

03. Narnia

http://www.narnia.com/index_01.html

This site is devoted to C.S. Lewis' *Chronicles of Narnia*. The graphics are attractive, a mass of information is provided about the series, and a small number of questions are set to test knowledge of the books. The site is an interesting contrast to the publishers' language textbook sites in section F.

04. Seussville

http://www.randomhouse.com/seussville

This Random House site featuring characters from Dr Seuss offers games that can be played on-screen or printed out, a competition designed to test knowledge of the Dr Seuss books, and a chat facility linking to the Cat in the Hat. This is, however, a commercial site, so information about books and CDs is strongly present, as are opportunities to buy.

05. Littlekids

http://www.bbc.co.uk/littlekids/

This BBC site is an attractive resource for very young children. It offers e-cards, a colouring-in facility, a gallery of children's paintings, a birthday page every day with individual greetings for each child featured, with photographs, stories (some with sound), and links to a small selection of similar sites. It also has a section of games that includes word games, number games and a memory game.

French

06. Premiers pas sur Internet ou L'Internet pour Enfants

http://www.momes.net

This rich and colourful site, designed for young French students, has a strong focus on the exchange of views on things like cartoons, films, music, books, travel, and toys. It also has a section that features the users' writing — prose, poetry, journalism and cooking. A large number of links are provided in the various categories covered by the site, largely, but not exclusively, in the French language. The level of French is challenging for beginners but the site offers, not only valuable contact with authentic language and culture, but an opportunity to contribute as well. The home page is described as a "page en construction permanente". This is true — new items are being added all the time, and there are signs of considerable energy behind the site.

07. L'Escale

http://www.lescale.net/

L'ESCALE
À la vigie

Sub-titled *La correspondance scolaire: Une expérience enrichissante*, this is a colourful and beautifully designed site, conceived in 1995 by teacher Isabelle Landry, illustrated by Daniel Boulanger, and supported by the Quebec Ministry of Education. The original aim was to link play and education in a site where the young might meet each other, learn, amuse themselves, discover things and exchange ideas. Since it went online at the end of 1996, it has made noticeable progress down this path. It is laid out as a club for sailors, with various islands that can be visited, each island being, in effect, a category of activities underpinned by illustrated texts on a wide range of educational material (the Age of the Dinosaurs was an early example). The group now includes islands for the living, explorers, holidays, education, science, chatting, games and the past. There are also opportunities to write for the shipboard diary, to correspond with others, and to follow links.

BEST COPY AVAILABLE

German

08. Die Blinde Kuh
http://www.blinde-kuh.de/

This is the first German search engine developed specifically for children aged 5 to 14. The developers were Birgit Bachman and Stefan Müller and it received the Deutsche Kinderkulturpreis 1999. As well as a search engine, it includes a large variety of categories around which activities can be structured — stories, children's mail, games, questions, opinions, weather, and children's sites. It also features a dedicated song written by the German pop group Rumpelstil. The site has a very friendly feel to it, with lovely illustrations, and children are encouraged to contribute to the development of the pages by posting interesting URLs, advertising their own home page, contributing to e-mail exchanges and providing feedback.

09. Sowieso — Die Online Zeitung für junger Leser
http://www.sowieso.de/

This is a German magazine, beautifully illustrated and updated weekly, developed especially for children by Christine Kretschmer and Anette Bässler. Like *Die Blinde Kuh*, its target audience is native speakers, but it would be useful for creating targeted activities for younger children — or adults! — learning German anywhere. Children can write stories and get them published on the site, or read other stories and contribute further ones. There is also a photo quiz with prizes on subjects like the Sydney Olympics, and an alphabetical archive in which popular concepts such as Coca Cola are explained. Children are also encouraged to send in their views on a variety of themes, such as report cards and grades.

010. Funline
http://www.funline.ch/

This site from Switzerland, originally developed by Dominik Landwehr, is addressed to young people anywhere. It contains colourful graphics and provides news on various subjects, a girls' section, frequently updated games, a user-friendly chat, job offers, a forum for buying and selling, an amusing dating service and many more. This is a nice site for truly interactive activities in young Netspeak. A lot of new items have been added and linked since the last edition, but many of these are in English, which makes finding the gems a little harder. The home page provides a link to *Brückenbauer* weekly magazine and features a slogan, "Stop Aids — Use a Condom", which is linked to the Stop Aids site.

011. Interactive Materials for German

http://www.al.lu/deutsch/index.html

This extensive site by a team in Luxembourg, led by Alexis Werne, provides writing and reading materials for junior high school students in a German-speaking environment. One excellent section provides interesting tips on writing essays in German which would be useful for students studying German as a foreign language. In the Reading Corner, students can present or review books, and produce a reading list. It contains tips on reading on the Web and provides extensive reading materials. In the creative writing section, students are asked to continue short stories with the option of Web publication. Skeleton outlines and authentic examples are provided for various genres like detective stories. The forum section, for information and document exchange, is still under construction. A download section gives access to all materials allowing them to be printed and used off-line. The grammar section is a very limited text book on-screen, covering a few aspects of nouns, verbs, prepositions and adjectives. Feedback is typically a look-up set of answers. The most interesting section is the one that illustrates the case system by way of a brief Wild West story with graphics. It is followed by questions with provision for whole sentences in response, and feedback consisting of an indication whether the answer was correct or incorrect, as well as the display of the required answer after three attempts. A help function causes the appropriate part of the story to be displayed. The latest news is that reality has overwhelmed the developers, and updates will be sporadic in future.

Japanese

012. Language Lab

http://www.jinjapan.org/kidsweb/language.html

The invitation is to visit Language Lab for a fun and easy introduction to Japanese, learning everyday basic phrases with examples of pronunciation. Only seven lessons are available, containing cartoon characters with speech bubbles and translations. Grammatical explanations are available at the bottom along with an exercise for each lesson. The site provides charts for hiragana and katakana, along with a wide variety of links.

P. Structured teaching plans for interactive tasks

These sites provide ideas for tasks to cover teaching sessions as well as more general ideas about how the Web might be used.

Various languages

P1. Language Resources on the Internet

http://www.afmlta.asn.au/afmlta/edu.htm

This site is an Australian Federation of Modern Language Teachers Associations (AFMLTA) project, coordinated by Vincenza Tudini, and aimed at students in the school sector. It provides information about how to use the Web with a set of examples. It includes an introduction, guidelines for the development of tasks based on Web resources, and 12 tasks — three in Italian (Jean Clayton, Anna Sperou), two each in Chinese (Jean Clayton), German (Maria Cooke, Andrew Ferguson) and Indonesian (Sue Elliott, Anne Helyard), and one each in French (Anna Sperou), Japanese (Fiona Orrman-Brown) and Turkish (Anna Sperou).

P2. Internet Activities for Foreign Language Classes

http://members.aol.com/maestro12/web/wadir.html

This site is a useful archive of various lesson plans that teachers can turn to for ideas of how to use the Web. It is focused on Web-based activities, and includes sections on How to Write Activities for the Web, Reading Strategies for Web Activities, and Internet Options in the Classroom. It also provides a Web lesson evaluation form. What it offers, above all, is more than 100 sample Web lessons produced by teachers taking part in technology workshops of the California Foreign Language Project and the California Language Teaching Association. Spanish predominates, though there are many lessons for French and several for German. Japanese, ESL, and Tagalog make an appearance — as does Latin (yes, there are Web sites written in Latin). The lessons take the form of a lesson plan, a Web site to visit, and a set of activities for the students to engage in, perhaps with specific questions to be answered. There is no provision for on-screen work, but the lesson can be printed out along with any student worksheet that may be provided. The language used varies; some lessons are in English, others in the target language. A useful addition to the site is a collection of 480 Web sites under the title of favorite teacher URLs, along with about 100 other links.

Q. Professional development and resources for teachers

These sites are a useful starting point for teachers who do not possess the expertise required to deal with the Web, providing information, ideas and access to courses. Many sites in other sections include the category For Teachers which provides a source of professional information and a medium for exchanging views and experiences. A select list of online journals of interest is included.

Professional development

Q1. TAPPED IN
http://www.tappedin.org/

The name is a reference to Teacher Professional Development (TPD) which is seen as a critical component of education reform and school restructuring. In line with that view, the site is a CyberCampus MOO designed to encourage K-12 teachers to create, shape, and participate in their own professional community. Members log in to share experiences, find and contribute educational resources, hold real time meetings, conduct collaborative inquiries, and meet new colleagues. Partner professional organisations use it to conduct online professional development activities with their staff, making their online resources available to all. Teachers can start up real-time discussion groups, get information on how to bring students online, and take part in events like educational Web site tours, discussions with researchers, and presentations by members of the community.

Technology

Q2. Information and Communications Technology for Language Teachers (ICT4LT)
http://www.ict4lt.org

This project, funded under the SOCRATES Program of the Commission of the European Communities, has been developed by an international team of experts, with Graham Davies as the academic coordinator. Its goal is to design a syllabus and deliver a new Web-based course in ICT for language teachers. The materials are being developed by practising language teachers with years of experience in using a wide range of technological aids. The approach is pedagogy-driven and the emphasis is on methodologies that can be implemented successfully with the aid of new technologies. Fifteen modules — five each at beginners', intermediate and advanced levels — are being piloted with 150 selected language teachers and teacher trainers in the UK, Italy and Finland. It is anticipated that the project will lead to a recognised international qualification. The course is currently free, but it is proposed to introduce fees in 2001. The site includes a link to Graham Davies' personal Web site which contains, among other things, a variety of links of interest to language teachers.

Q3. DISSEMINATE

http://www.disseminate.org.uk/

This evolving project is led by Philippe Delcloque at the University of Dundee. It is intended as an e-learning authoring system dedicated to languages, which will be a full multimedia tool for both Macs and PCs. The underlying philosophy is collaborative, with individual authors writing authoring modules dedicated to a particular function, like interpreting or branching dialogue. All the modules will fit within a macrostructure which will handle all the communication, result retention and tracking, familiar in systems such as Blackboard and Web-CT. As in the new version of Hot Potatoes, XML is at the core of the development, which is designed to integrate with industry standards tools. The site hosts a questionnaire survey on multimedia development.

Q4. Web Enhanced Language Learning (WELL)

http://www.well.ac.uk/

The WELL Project, run by a consortium of British Universities, aims to promote wider awareness and more effective use of the Web for language teaching, by providing a starting point for academics who wish to discover what the Web and associated new technologies can offer, and by acting as a forum for the exchange of good practice amongst more advanced practitioners. Its online offerings include conferences, support for case studies of Web-supported language learning and teaching, and electronic publications. A useful section provides links to selected Web-based resources listed in 10 languages (two of the categories are Celtic and Scandinavian languages). Menus allow searchers to choose the language, the category required, and the level desired. Selecting online lessons and exercises in French for beginners produced 19 listings, each with a few lines of critical analysis. This annotated listing is a potentially valuable resource which is likely to grow, since it is maintained by a professional group.

Q5. World Links for Development (WorLD)
http://www.worldbank.org/worldlinks/

WorLD, sponsored by the World Bank Institute, provides training for teachers, teacher trainers and students in developing countries, in the use of technology in education. It then links students and teachers in secondary schools in developing countries with students and teachers in industrialised countries for collaborative research, teaching and learning programs via the Internet. For examples of projects under way, a guide to finding a partner school, and ideas about how to carry out a collaborative project see:
http://www.worldbank.org/worldlinks/english/html/projects.html

Various languages

Q6. Active Worlds Educational Universe (M2)

Q7. LOTELINX
http://www.lotelinx.vic.edu.au/

The LOTELINX project, funded by the Victorian Department of Education, supports the teaching and learning of ESL and Languages Other Than English through the use of learning technologies. It is essentially a portal to 21 separate languages which contain information for teachers and students on a range of subjects, and provide links to online media, radio and newspapers, and to subject associations, university language facilities and community organisations. The sites also include interactive student pages, e-mail clubs and online quizzes.

Q8. Internet Resources for Language Teachers and Learners
http://www.hull.ac.uk/cti/langsite/

Based in the Language Institute at the University of Hull, work is in progress towards the goal of providing a gateway to evaluated online resources for Modern Languages and Literatures. This site, maintained by Fred Riley, is a comprehensive list of resources compiled across a wide range of languages.

Q9. Lingu@net
http://www.linguanet.org.uk/

This site aims to provide quality-assured information and materials for language teachers and learners. It is a directory of sites, selected on the basis of recommendation and popularity, that host useful resources and services, innovative features and interesting practice to support language learning. Sections include language learning materials and Web sites for languages, but the site contains a lot of information, such as guides to using the Web, that will be of interest to language teachers. It is managed by the Centre for Information on Language Teaching and Research (CILT) which is another valuable source of information about resources: http://www.cilt.org.uk/index.htm

A related site is Lingu@net Europa, a multilingual (currently Dutch, English, French and German) virtual resources centre to support the teaching of foreign languages, which is being developed with financial support from the European Commission. The aim is to provide information and access to quality-assured language teaching and learning resources. Available are authentic teaching materials, details of conferences, policy and planning documents and research bibliographies: http://www.linguanet-europa.org

Q10. Teaching with the Web

http://polyglot.lss.wisc.edu/lss/lang/teach.html

This site, maintained by Lauren Rosen at the University of Wisconsin, is a compilation of ideas for using Web resources as a language teaching tool, with a set of links to sites with pedagogical information. Other sections hosted by Wisconsin include selected links across a variety of languages, and language learning activities for the Web, which were compiled by a discussion group. This collaborative element is a feature of the site.

Q11. The Linguist List

http://www.linguistlist.org/

Currently edited at Eastern Michigan and Wayne State Universities, the main focus of this site is to provide a professional forum where academic linguists can discuss linguistic issues and exchange linguistic information. The section of language resources provides links to a wide variety of sites covering an extensive range of languages.

Slavic languages

Q12. AATSEEL

http://kathleen.slavic.pitt.edu/~aatseel/index.html

This is the site of the American Association of Teachers of Slavic and Eastern European Languages, and contains a wealth of professional and course information, as well as links to relevant resources. The section on computer programs and Web tutorials and exercises provides a small selection of sites in Czech, Hungarian, Polish and Russian. Other languages like Bulgarian, Croatian and Ukrainian figure in the resources section.

English

Q13. StudyCom's English for Internet

http://www.study.com/index.html

Part of the purpose of this site is to train its volunteer teachers in online teaching. For further details see B4.

Q14. ESL in the Mainstream

http://www.eslmainstream.com

This is an accredited professional teacher development program developed by Jean Clayton and colleagues in Adelaide. The course has been redeveloped online to meet the needs of remote and isolated educators, as well as of urban educators who are too busy to attend workshops. The commitment of time required to cover the 10 modules is between 30 and 60 hours. Trained tutors are provided as guides to participants in their independent learning. Although the course is confined to enrolled students, anybody wanting to browse can contact the developer for time-limited access.

The challenge for the designers was to convert for the Web a highly interactive workshop structure involving personal reflection, exchange of ideas, critiquing of current schooling practices and trying out new approaches in the classroom. Electronic feedback forms, teleconferences and the e-mail forum provide opportunities for comment, so that the course quality can be constantly monitored. The course helps participants to develop teaching skills and classroom resources, and offers options for working together for teachers who normally would not have this opportunity. It fosters a range of electronic networks and enables access to a wealth of Internet resources to support ESL teaching and learning. The collaborative nature of the face-to-face course is maintained through school-based research, teleconferences, bulletin boards, FAQs and an online chat facility where participants can make arrangements to work together on activities, share ideas and ask questions of each other and the tutor.

WebCT acts as a shell for the content. This allows course participants to be tracked, and features — such as synchronous online forums, a notepad and whiteboard facility, a glossary, a library of articles and linkage from each module of the course to relevant Web sites, as well as e-mail contacts among course participants — to be developed. A comprehensive range of graphics and interactive tasks support the online text.

Q15. Jarp Town

http://elicos.qut.edu.au/village/default.htm

JarpTown is a creative writing experiment developed by Truna at the Queensland University of Technology. A group of ESL students have developed a variety of characters which then interact in a village environment built in the cyber community, Connections. The results of these interactions are then turned into narrative writings and posted back on the Web. As the project progresses, the hope is that readers will be able to walk into the community and join in the narratives.

Q16. Technology in English Language Learning

http://www.eastment.com/index.html

This site, maintained by David Eastment, a freelance consultant in the use of IT in language teaching, is aimed at anybody using computers in language education, but chiefly EFL and ESL teachers. It contains a useful and select collection of links in three categories — teacher, student and content resources. Each site listed comes with a short and helpful comment. Student resources are organised in ten categories: general resources, grammar, vocabulary, games and quizzes, reading, writing, listening, speaking, virtual schools and English for business.

Q17. A Web Resource for CALL Lab Managers

http://www.vancestevens.com/esl_home.htm

This site, described as being "under constant development" by Vance Stevens, is for teachers and learners of languages online as well as lab managers. Among the information on CALL laboratories and using the Web, there is a section of ESL activities and CALL applications which includes collections of links in useful categories, like business English; games; grammar, idioms and proverbs; listening activities and speech recognition; pronunciation; reading, vocabulary, and Cloze; writing and composition; and testing resources and assessment. It includes some models for online ESL teaching and learning. There is also a section on Languages Other Than English, which provides a handful of links for each of Chinese, French, German, Greek, Japanese, Portuguese, Russian and Spanish. The site includes a voice chat.

Q18. Easton Language Education

http://eleaston.com/english.html

This provides lists of online ESL sites, ESL quizzes, and sites that provide materials for teaching and learning. This latter page includes a language learning section, one on classroom management, and a list of cultural material organised into some two dozen categories, each containing a substantial number of links. The site is a subset of the home page which contains a separate section providing links to languages, including Albanian, Croatian and Jersey French — but not Japanese! The site is not laid out in a way that makes navigation easy or that reveals immediately what it contains. But, there is, for example, an interesting sub-section (http://eleaston.com/teach_online.html) which offers information about Web sites for teachers wanting to get involved in this form of teaching, and another that deals with the issues of distance education (http://eleaston.com/dist_ed.html).

Q19. ThinkQuest

http://www.thinkquest.org/

ThinkQuest is a non-profit educational group committed to advancing learning through the use of computer and networking technology. It encourages teachers and students from around the world to use the Internet in innovative and exciting ways as a collaborative, interactive teaching and learning tool, through an Internet Challenge for teams of students aged 12–19, and a junior version for grades 4–6, with scholarships and awards for the winners. This program of student-directed, project-based learning is designed to encourage the creation of high quality, content-rich, educational Web sites that can then be made available freely to others around the world via the Library of Entries. Items in the library are organised into 17 major categories, including language arts, and materials for teacher education. However, although there is one German site in the list, this is essentially an English language exercise.

ThinkQuest is also developing an online community where students and educators can come together to share information in chat rooms and mail lists. In addition, it is developing communities which will be groups of members centred around particular interests (the examples given include a community of Web graphic designers, and a series of lesson plans incorporating technology). Included in each community will be a community page, a bulletin board, a chat facility, and a file upload area.

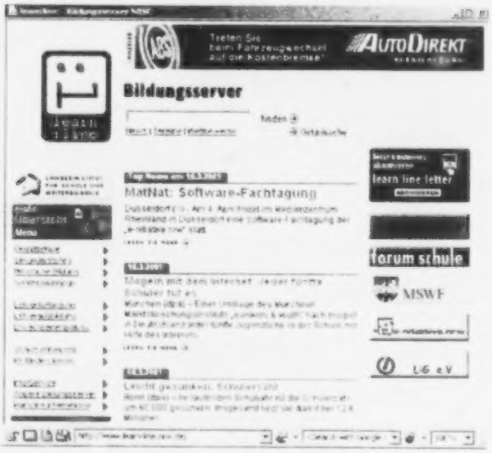
Despite the fact that the site is not focused on languages, it is valuable as a source of ideas that teachers could draw on to develop their own cooperative projects.

Q20. Language Fun Farm (see G2)

German

Q21. Learn:line

http://www.learn-line.nrw.de



This German language site, developed and maintained by the Landesinstitut für Schule und Weiterbildung in Söst, addresses teaching needs in primary, secondary and vocational education as well as teacher pre-service and in-service training. It provides information, practical help and resource material for the integration of technology into a wide variety of subjects in the German syllabus. Primarily developed for the needs of teachers in Germany, it offers a wealth of material suitable for German as a foreign language on different levels, as well as some material for English, French and Spanish.

For all subjects there is a list of selected Web resources with critical comments, while topic-related material for a wide variety of subjects, like history, social studies, or sciences, as well as the languages, is being developed by teacher practitioners to showcase the ways in which new media can be used effectively, and where its potential lies. The material is structured into topic-related packages which are ideally to be used in classroom situations where the main focus lies on project-based self-study and student interaction, and where the teacher's role is that of guide. The concept of communication and cooperation also involves going beyond the classroom into the Web.

Mediothek offers material specifically designed for *Learn:line* as well as references to other Web resources. *Foyer* is an area in which work created by students can typically be found. *Schwarzes Brett* is a bulletin board which can be used by classes in different parts of the world for joint projects and distance learning. *Werkstatt* offers a more diverse and sophisticated functionality in terms of uploading and downloading files, or keeping track of who has worked on which document when. This means that Web-based cooperation can also occur at the level of individual documents and Web pages can be designed jointly over a distance. *Kinder in Europa*, which is under construction, is multilingual and aims to engage teachers and children in many countries in the development of a multilingual online picture dictionary, for instance, or a multilingual cookbook. Finally, there is a database of

BEST COPY AVAILABLE

schools using ICT in Germany which can be searched to locate schools and find out about their ICT projects. This is a useful starting point for anybody seeking international partnerships.
http://www.learn-line.nrw.de/angebote/dabi/index.html

Q22. Institut für Deutsche Sprache
http://www.ids-mannheim.de/

This site is maintained by the Institute for the German Language in Mannheim, which is a research body specialising in the study and documentation of current usage and the recent history of the German language (grammar, lexical studies, language use). Part of what it has to offer is a rich database for German teachers, with links to course materials, language learning software, exercises, didactic material and professional information.

Q23. Deutsch lernen mit Jetzt online (see G8)

German and Indonesian

Q24. German and Indonesian Teaching Resources
http://www.home.gil.com.au/~kmunro/

This site by Katherine Munro, West Moreton Anglican College, Melbourne, includes links in German and Indonesian, including search engines for these languages. Its main interest is in resources for both languages, the most extensive of which are a collection of German jokes and a large set of German exercises catalogued by school grade.

Online journals

Computer Assisted Language Learning

Language Learning and Technology
http://llt.msu.edu/default.html

CALL-EJ Online
http://www.lerc.ritsumei.ac.jp/callej/

ReCALL (occasional online issues)
http://uk.cambridge.org/journals/rec/

Applied Language Studies
http://www.solki.jyu.fi/apples/

Language Learning Online
http://labyrinth.daedalus.com/LLO/

German as a Foreign Language (GFL)
http://www.schmachtenberg.de/gfl/

Educational technologies

International Forum of Educational Technology & Society
http://ifets.ieee.org/

Asynchronous Learning Networks
http://www.aln.org/

Australian Journal of Educational Technology
http://cleo.murdoch.edu.au/ajet/

Interpersonal Computing and Technology Journal
http://www.emoderators.com/ipct-j/index.html

International Journal of Educational Technology
http://www.outreach.uiuc.edu/ijet/

R. Metasites

While large numbers of Web sites are tending to include sections of useful links, metasites aim at comprehensive coverage, with the number of links in some cases running into four figures. Such an extensive coverage, however, may not be as useful as it appears, since the user might prefer to look at a smaller group of select sites with helpful critical commentaries, rather than deal with a mass of material with little or no guide to what each item contains. The problem of reviewing every site for content, let alone for quality, is clearly enormous. To produce a comprehensive listing of sites in any given area, with a useful brief review of what each has to offer, is a task that may require a massive level of collaboration worldwide.

Dictionaries and grammars

R1. Web of Online Dictionaries

http://www.yourdictionary.com/

This award-winning site, the successor to the Web of Online Dictionaries launched in 1995 by Robert Beard at Bucknell University, lists more than 1500 dictionaries representing more than 230 languages. Its academic authority is supported by an Advisory Council of Experts to provide guidance on the development, acquisition, and maintenance of the dictionaries. Part of the site is the Endangered Language Repository, created to provide a sanctuary for languages under threat. The stated ambition of the site is to become the most authoritative and comprehensive Web portal specialising in information about any language in the world, not only by listing online dictionaries, but also by providing ways of building vocabularies, studying grammar, and practising spoken and written languages. It sees itself as a language-interest community designed to find and share information about speaking, reading, writing and comprehending all the other languages in the world.

R2. Your Dictionary.com

http://www.yourdictionary.com/grammars.html

Grammars of more than 100 languages are listed, along with additional language resources such as newspapers and online radio stations.

R3. Web of Online Grammars
http://www.facstaff.bucknell.edu/rbeard/grammar.html

Unlike his dictionary site, Robert Beard's list of online grammar pages and lessons remains available under its old name. The stated aim is to provide the most complete package of language-learning materials on the Web through the combination of grammar and dictionary sites.

Various languages

R4. I Love Languages
http://www.ilovelanguages.com/

This site created by Tyler Chambers and formerly known as the Human Languages Page, presents itself as a comprehensive catalogue of Internet resources covering almost 200 languages. It contains more than 1900 links all of which are claimed to have been "hand-reviewed". The subject listings include languages and literature, schools and institutions, linguistics resources, jobs and internships, products and services, organisations, and latest additions. The categorical listings include dictionaries and language lessons (more than 120, listed alphabetically by title, not by language).

R5. LanguageE-thologies
http://www.e-lang.net/

This extensive and useful site is created and maintained by the Centre for Language Training at the Canadian Foreign Service Institute. Although described as being in a pilot stage, it already includes some 50 languages. Categories available for each language vary, but they can include skills, references, activities, software, immersion, testing and a section for teachers. These categories are then broken down into further sub-divisions, like online courses, games, vocabulary and grammar. Each site is accompanied by some lines of review.

R6. Jennifer's Language Page
http://www.elite.net/~runner/jennifers/language.htm

This site, created by Jennifer Runner, has sections covering a wide variety of languages, divided into European, North American, South and Central American, African, Asian, Australian and Pacific and — though not listed on the home page — International. Other Resources provides links to other metasites. The European languages section covers nearly 70 languages, including some unusual ones like Faroese and Manx. In reality, there are more languages than this, because there is also a section of links covering more than one language. Minority Languages of Russia on the Net, for example, offers links to 32 languages, with many more listed but not yet active. On the other hand, there are not a large number of links for each language — Spanish, for example, has only fifteen.

R7. Language Hub
http://www.cetrodftt.com/

This is part of a commercial site run by two companies that offer translations (Danish and English to French), as well as other language services. The Language Hub is described as a complete language reference. With 164 languages covered, it lists a variety of language-related resources.

Indian Languages

R8. Indian Languages
http://www.indianlanguages.com/

This site, which is part of a larger commercial activity in Indian software, aims to cover an extensive range of Indian languages — Assamese, Bengali, English (!), Gujerati, Hindi, Kannada, Malayalam, Marathi, Oriya, Punjabi, Sanskrit, Tamil and Telugu. Different languages have different levels of coverage, with Hindi the best covered. Categories offered are newspapers, magazines, literature, entertainment, technology, newsgroups and Web sites (a compilation of general resources on the Web). The site is a useful starting point for information about support for learning languages that are not strongly represented on the Web.

BEST COPY AVAILABLE

English

R9. Internet TESL Journal: TESL Links
http://www.aitech.ac.jp/~iteslj/links/

This major resource offers an extraordinary variety of links (amounting to almost 6000) for students and teachers in dozens of categories. An attempt has been made to provide useful information about the content of the sites listed. The site claims to be optimised for speed with an unusual slogan of no advertising, no images, no tables, no JavaScript, no frames, minimal HTML — and no nonsense! This database is a subset of the monthly *Internet TESL Journal*, which also offers articles, research papers, lesson plans, classroom handouts and teaching ideas.

Esperanto

R10. Esperanto.Net
http://www.esperanto.net/

This site can be read in a rich variety of languages other than Esperanto, and gives access to a small collection of links in three categories — general information, learning and organisations. Under "learning", there are links to five courses: Esperanto HyperCourse; the Free Esperanto Course; Esperanto for English Speakers; Learn Esperanto with Foreign Languages for Travellers; and Esperanto — Learn to speak it like a native (!).

French

R11. Français Langue Étrangère et Langue Seconde
http://www.swarthmore.edu/Humanities/clicnet/fle.html

This is a collection of more than 400 Web sites covering a variety of areas of interest to French courses. It aims to provide a brief description of each site, including a rating of its linguistic level in three categories: beginner and false beginner, intermediate and advanced, and *perfectionnement*. It is part of ClicNet, an impressive site located at the University of Swarthmore, and edited and illustrated by Carole Netter, which collects French resources on education, culture, art and literature (http://www.swarthmore.edu/Humanities/clicnet/). It claims more than 3000 links and is regularly updated.

R12. TennesseeBob's Famous French Links
http://www.utm.edu/departments/french/french.html

This site, maintained by TennesseeBob Peckham, Director of the Globe-Gate Project, claims 10,000 links. Among these are 405 links in French Grammar Central, and some 85 in French courses on the Web. A sign of the times may be the announcement that the site is soon to move to a commercial server to recoup expenses through advertising.

Tamil

R13. A Pot-Pourri of Tamil-related Web Pages
http://www.geocities.com/Athens/5180/tlinks.html

A collection of more than 800 links, many of them to Tamil cities, but some of them educational.

MOOs

R14. Gurk's Moo Gate
http://insanity.halifax.ns.ca/moogate.html

This site, maintained by Kevin Hughes, contains extensive lists of MOOs, MUDs, role-playing games, and virtual reality sites, with a brief description. While the sites are overwhelmingly English, it is an excellent page for getting an impression of the sorts of purposes for which MOOs tend to be used.

R15. Rachel's Super MOO List
http://moolist.yeehaw.net/

Extensive listings and links to MOOs are divided into various categories: educational MOOs, research, foreign language (ESL), role-playing games and social MOOs. Included within the ESL MOOs are Dutch, French, German, Italian, Portuguese and Spanish sites. The site also contains an interesting essay on the topic of MOOs, covering such aspects as their history, current applications and possible future.

More thanks

I would like to thank the following people for contributing in one way or another:
Adriano Vincentelli
Paul Thomas
Ronald Graetz
Petra Hobrecht
Trude Heift
Ulrike Klingemann
Jean Clayton
Birgit Bachmann
Douglas Mills
Johannes Jänen
Robert Irving
Graham Davies
Pete Jones
Richard Harrison
Roy Larke
Joan Keevill
Philippe Delcloque
Anne Menis
Inge-Anna Koleff
Fred Riley
James Buckingham
Patrik Svensson
Bernd Rueschoff
Liz Terauds
Mark Warschauer
Christiane Momberg
Roly Sussex
Patrick Durel

Index

A
Albanian · Q18
Arabic · I1, O1
Archi · I5
Assamese · R8

B
Babylonian · I5
Bengali · R8
Bulgarian · Q12
Burmese · B2, D5

C
Cantonese · M3
Catalan · M3, O1
Celtic languages · Q4
Chickasaw · I5
Chinese · B3, C3, D3, D6, I1, L1, O1, P1, Q17
Croatian · Q12, Q18
Czech · E1, I5, Q12

D
Danish · I1, O1
Dutch · E3, E4, I1, M3, Q9, R15

E
English · B4, B6, C5, C6, C7, C8, C9, C12, C15, E3, E5, E6, E7, F1, G1, G2, G3, G4, G5, G6, I2, I6, I7, I8, J1, K2, K3, L3, M3, N3, M1, O2, O3, O4, O5, Q9, Q13, Q15, Q16, Q18, Q19, Q20, R8
ESL · B5, C7, D3, E4, F2, F4, P2, Q7, Q14, Q15, R9, R15
Esperanto · H1, R10

F
Faroese · R6
Finnish · I1
French · A1, C1, C12, D1, D8, D9, E1, E4, E8, E9, F1, F2, F3, F4, G7, H1, I1, I9, I10, I11, L1, L2, L4, L5, M3, O1, O6, O7, P1, P2, Q4, Q9, Q17, Q21, R11, R12, R15

G
German · B8, C1, C10, C11, C12, D1, D3, E1, E4, E13, E14, G7, F3, F4, G8, H1, I1, I12, I13, J2, L1, L2, L6, L7, M3, M8, N1, O1, O8, O9, O10, O11, P1, P2, Q9, Q17, Q19, Q21, Q22, Q23, Q24, ONLINE JOURNALS, R15
Greek · B11, F1, I1, Q17
Gujerati · R8

H
Hebrew · C13, D3, I1, M3, O1
Hindi · C13, D3, R8
Hungarian · D10, E3, Q12

I
Icelandic · O1
Indian languages · R8
Indonesian · A2, B2, B12, D11, E3, F, I1, L1, P1, Q24
Italian · A3, B13, B14, C12, C15, D1, E3, E4, F1, F4, I1, M3, M9, N2, O1, P1, R15

J

Japanese · B15, B16, B17, C1, C2, C12, D1, D14, E2, F, I1, I2. L1, M3, O1, O12, P1, Q17, Q18

Jersey-French · Q18

K

Kannada · R8

Korean · A4, B18, B19, B20, C1, C16, C17, I1

L

Lao · B2, D15

Latin · D3, M3, P2

M

Macedonian · O1

Malayalam · R8

Mandarin · C4, D6, M3

Manx · R6

Marathi · R8

MOO · M, R14, R15

N

Norwegian · I5

O

Old Persian · 47

Oriya · R8

Orkhono-Yeniseyan · I5

P

Phonetics · B1

Polish · I1, Q12

Portuguese · A5, E3, E4, F1, G10, I1, M3, O1, Q17, R15

Professional development · Q1, Q2, Q3, Q4, Q5, Q10, Q11, Q12, Q13, Q14, Q17, Q19, Q21, ONLINE JOURNALS

Punjabi · R8

Q

Quechua · I5

R

Romanian · O1

Russian · C1, C18, D3, D16, E15, E16, F1, I1, L1, M3, Q12, Q17

S

S.E. Asian languages · B2

Saami · O1

Sanskrit · R8

Scandinavian languages · Q4

Shugnan · I5

Slavic languages · Q12

Slovenian · O1

Spanish · A1, B21, C1, C12, C19, C20, D1, D17, E1, E4, E17, E18, E19, E20, E21, F1, F4, G9, H1, I1, L2, M3, M10, N3, O1, P2, Q17, Q21, R6, R15

Swahili · I5

Swedish · D18, I1,O1

T

Tagalog · B2, B22, P2

Tamil · B23, R8, R13

Telugu · R8

Thai · B2, B24

Turkish · H1, I1, I5, P1

U

Ukrainian · Q12

Urdu · D3

V

Various languages · C1, C2, D1, D2, D4, E, F, H1, H2, H7, H9, L1, L2, M1, M2, O1, P1, P2, Q5, Q6, Q7, Q8, Q9, Q10, Q11, R1, R2, R3, R4, R5, R6, R7,

Vietnamese · B2, B25, B26, I1

W

Welsh · F1

Part 3:

Research

“Absolutely Worth the Effort”

Introduction

After looking in detail at the development and practice of Web-based teaching, two further areas of research naturally suggest themselves. Do students perceive this environment to be viable for language learning? And what are the outcomes in terms of achievement?

The first project is immediately feasible and the subject of this final part of our book. The second, however, is much more complex; it will be included in a later publication and would also make an excellent PhD topic.

One of the problems in determining.the effectiveness of Web-based learning is that research is scarce and lacks scholarly rigour (Windschitl 1998, McIssac & Gunawardana 1996). The difficulty of generalising results characteristic of the previous generation of Computer-Assisted Learning (CAL) and Computer Assisted Language Learning (CALL) continues to exist. It is easy to list the problems attached to research into the efficacy of CALL (Chapelle 1997), and such research has produced equivocal results (Dunkel 1991). Judgements in the area vary widely. At one end are early positive reports from the authors of several large meta-analyses of CAL (see Kulik et al 1980:538, "the computer did its job quickly — on average in about two-thirds the time required by conventional teaching methods") or of CALL where Basena & Jamieson (1996:19) claimed "the newer technologies show promise to be able to provide feedback in multiple modes, such as listening and reading", even though they cautioned that "the results are difficult to interpret, and the designs and measures do not lend themselves to reproduction or generalisability". At the other end are dismissive (in the quoted case, unsubstantiated) comments such as: "Study after study seems to confirm that computer-based instruction reduces performance levels and that habitual Internet use induces depression" (Noble 1998b:2).

The same applies to research in distance education in general. See http://cuda.teleeducation.nb.ca/nosignificantdifference/ for the most often cited collection of research results claiming no significantly different findings between classroom and distance learning. The site provides selected entries from the book *The No Significant Difference Phenomenon* as reported in 355 research reports, summaries and papers (Russell 1999). The book itself raises questions about poor research designs — problems which have long been pointed out by a number of researchers (Clark 1983, 1985; Maddux 1995; Joy & Garcia 2000).

Key shortcomings of many investigations are outlined in detail in a review of contemporary research on the effectiveness of distance learning in higher education in the United States (Phipps & Merisotis 1999):

- "Much of the research does not control for extraneous variables and therefore cannot show cause and effect."
- "Most of the studies do not use randomly selected subjects."
- "The validity and reliability of the instruments used to measure student outcomes and attitudes are questionable."
- "Many studies do not adequately control for the feelings and attitudes of the students and faculty — what the educational research refers to as 'reactive effects'."

Of course one can go too far in the demand for rigorous conditions to apply to research, and the study by Phipps and Merisotis has been criticised for doing precisely that (Brown & Wack 1999). What is clear, though, is that, just as in the CAL and CALL research, it is impossible to generalise results from meta-analyses at this point, and one is better advised to draw conclusions from well-designed individual investigations relevant to one's own context.

If we look at studies which have specifically investigated the role of the Web or the Internet in language learning, they have tended to concentrate on individual variables such as reading ability (Ganderton 1999), elicitation tasks (Ayoun 2000), motivation and attitude (Atkinson 1998), discourse analysis (Warschauer 1996), or project-based CALL (Meagher & Castanos 1996; Debski & Gruba 1998). No large-scale multivariate investigation focusing on the students' experience of Web-based language learning has been reported to date.

While findings in the above studies have been, on the whole, encouraging about the use of the Web for language learning activities, there have also been strongly opposing voices in other fields (Hara & Kling 1999; Noble 1997, 1998a, 1998b).

The studies carried out here have not attempted to investigate effectiveness in terms of achievement, but have concentrated on students' views of the Web as a viable environment for language learning. We were interested in how comfortable tertiary and school students feel about working in a Web-based environment, whether they enjoy it, and whether perceptions change after prolonged use.

We were also interested in whether students find it useful to work with Web-based materials, which elements they find most useful for language learning, how they perceive the advantages and disadvantages of Web-based learning compared to conventional learning, and which mode of delivery they prefer.

We further wanted to discover which learning strategy and learning style strengths might typify good Web-based language learners, and whether study preference (working alone or with others) makes a difference to perceptions. Given the general trend in the literature that suggests differential use of the online environment by males (Stewart et al 1999; Parry & Wharton 1994; Smith 1995), and by younger students (Meredyth et al 1999), we also investigated potential differences relating to gender and age in the way all variables are perceived. Finally, we were interested in discovering whether distance learning students had significantly different perceptions of the environment from those who used Web-based materials as an add-on to face-to-face teaching.

Two studies were carried out in two successive years. The first investigated all the listed questions, with the exception of those related to learning styles.

The second study was set up with these additional ends in view:

- To obtain a bigger sample of students.
- To include younger students.
- To investigate the relationship between learning styles and perceptions.
- To ascertain differences in perceptions between school students and adults.
- To look at differences in perceptions related to the different approaches and materials used.
- To refine and adapt the research instruments.

While procedures were fairly similar for both studies, there were some major differences.

Study 1 concentrated on tertiary students engaged in Web-based learning, either by distance or as an add-on to face-to-face teaching, and on the relative influence of learning strategies on students' perceptions of the environment. Students were largely engaged in structured on-line learning activities designed to acquire new, or to practise existing, language skills. Participation was sought through personal invitations.

Study 2 included secondary and primary students as well, and focused on learning styles. Students were all in regular face-to-face school or tertiary settings. They were mostly involved in using the Web for task-based cultural projects, the creation of quizzes, reading and comprehension tasks, and cooperative exercises. Participation was sought through general invitations in newsletters and discussion groups.

Results were written up separately, with the exception of the students' perceptions of the advantages and disadvantages of Web-based learning for which the data were combined into a single self-contained chapter.

Finally, conclusions were drawn from the combined investigations. Important differences between the way that students at school and in tertiary settings perceive the environment were considered, remedies for addressing perceived disadvantages were suggested, design implications for Web-based resources were indicated, and what might be thought a hindrance or help in good practice Web-based teaching and learning was considered.

We are immensely grateful to all the teachers, research assistants and students who made this research possible, and to the Faculty of Arts at Monash University who supported it with two small research grants. We are particularly indebted to:

Rebecca Oxford, Joy Reid, Gregor Kennedy, Nina Dow, Ria Hanewald, Maura Garau, Viola Rosario, Natalie Senjov-Makohon, Takako Tomoda, Brian May, Phil Cozens, Miriam Schcolnik, Melissa Hughes, Brian Brooks, Shona Mancev, Greg Dabelstein, Roger Ganderton, Nahed Abou-Zeid, David Askew, Peter Stagg and Judith Bothroyd.

Note: We have appropriated two titles for Part 3 with permission of the authors of *Absolutely Worth the Effort: The Final Report of the Adult Numeracy and Mathematics On Line Project*. An Australian Language and Literacy Policy, ANTA Adult Literacy National Project 1998. This report supports some of our findings in the "Delights and dilemmas" chapter.

Study 1

Is the Web a Viable Language Learning Tool? Tertiary Students' Views

Focus: Learning strategies

METHOD

Participants

A number of colleagues, identified as particularly active in Web-based language teaching, were invited to participate. Those who accepted the invitation were Cyberitalian, an online provider for beginners' and intermediate Italian, based in New York; two universities in Melbourne, one teaching beginners' Japanese, and the other intermediate English as a Second Language (ESL); and a college of technical and further education also teaching intermediate/advanced ESL in Melbourne. All Melbourne students attended classes and had face-to-face contact with a teacher, using the Web either in class or as an extra resource. The New York students were enrolled as distance learners.

It would have been desirable to have a better balance of face-to-face and distance students, but one committed partner withdrew at the last moment. *Texthaus,* an online provider of German based in Milan, had also accepted the invitation but could not take part because the major developer of the course was in the process of transferring to another university in Austria. This dilemma demonstrates how dependent such resources often are on the person driving the development. Another group, involved in beginners' Spanish, also withdrew because of problems with the technology.

Students' backgrounds

Seventy-five percent of the participants were female and 25% male, with ages ranging from 18 to 75. A large variety of language backgrounds were represented, with 54% specifying a language other than English as their native language. This last group needs to be seen in the context of Australia as a multicultural society.

While the majority will have been foreigners coming to Australia to study ESL, many will have been born and educated in Australia, but still consider that their native language is something other than English because it is spoken in the home. For the purposes of simplicity and clarity the group will be referred to as non-native speakers of English.

Materials used

The online materials differed slightly between the three Melbourne courses, but were all designed to provide fairly structured language practice, additional to face-to-face teaching, in various forms ranging from specially written exercises with online feedback, to task-based activities using other linked sites (see http://www.arts.monash.edu.au/japanese/ocjpl1015/ for an example in Japanese). Students enrolled in the Italian course were in very similar activities, but their course was designed to teach everything online. It was therefore more formally structured with more extensive materials provided at different levels of proficiency, and offered tutor contact through a chat site (http://cyberitalian.com/). Both Cyberitalian and the Japanese site, Sakura, are more fully described in Part 2, with even more detail given about Sakura in Part 1.

Procedure

The study was conducted during second semester 1999 over approximately 11 weeks. Students' consent to participate was sought through statements of intent (available from the author) that were handed out or e-mailed. Students were asked to complete three different questionnaires on three separate occasions online, using their own name or an alias. The online site for the questionnaires can be viewed at: http://www.arts.monash.edu.au/lc/sill_example/index.html

Videotaped interviews were conducted with a random sample of 12 local students who expanded on other relevant issues related to their online experience through open-ended questions.

Questionnaires

Strategy Inventory for Language Learning (Oxford's SILL)

This was completed at the start of teaching, before students had used the Web materials. Results were intended to give a broad indication of students' strategy preferences/strength, in order to find out whether there is a relationship between strategy use and any other variable under investigation. The intermediate and advanced students had ample language learning experience by this time, while the beginners had one semester of previous language learning. It was not of interest in this project to investigate changes in strategies by way of before and after measures. Definitions of the individual strategies can be found in Appendix 1.

Web Experience/Perception questionnaire (designed by the author)

This was completed after questionnaire 1, when students had spent considerable time using the Web materials. It was designed to give information about several things: students' comfort and enjoyment when using the Web, how useful they found the Web for language learning, their recommendations about how best to use Web materials in terms of mode, and their views about the advantages and disadvantages when compared to conventional teaching and learning environments.

Resource Evaluation (adapted from Gregor Kennedy's CAL evaluation)

This was completed last, after the Web activities were finished. The intention was partly to provide a summative evaluation of the materials that would be communicated to the respective developers, but mainly to gauge students' impressions of their quality. Given the trend in the literature that suggests students react badly to the environment as a whole if resources are pedagogically unsound or technically unstable (Hara & Kling 1999), this measure was designed to put the comments made in response to the second questionnaire into perspective.

Data analyses

Univariate analyses of variance were used to identify any significant relationships between selected variables. Tukey HSD post hoc tests were then used on significant relationships to determine where the significant differences lay. Correlation analyses, nonparametric tests using two independent samples, and t-tests were also used where appropriate. Sixty-three valid responses (out of a total of 75 students enrolled) were received for the first and second questionnaires and 48 for the third. Most analyses reported below contain 63 subjects, while those related to quality of resource contain 48. The total sample was distributed over 16% Cyberitalian, 43% Japanese, 40% ESL. To conserve space, tables for statistical analyses are not included, but levels of significance (set at $p < 0.05$) are given on each occasion. Please note that the lowest p value, $p = 0.00$, denotes the highest level of significance for findings. The full documentation is available from the author.

RESULTS

Mode of delivery

Students were asked to rank on a 4-point scale four modes in which language learning materials might be used on the Web:

- As an addition to face-to-face teaching, with the material used in the classroom.
- As an addition to face-to-face teaching, with the material used in the students' own time.
- As a distance learning resource without access to an online tutor.
- As a distance learning resource with access to an online tutor.

Nearly half the respondents considered that the best way to use Web materials was in class as *an addition to face-to-face teaching*, and the least preferred mode was *distance learning without access to a tutor*. Significant differences were found for the students enrolled in the distance learning course who had a greater preference for options 2 (p = .009) and 4 (p = .05) than the face-to face learners, and for non-native speakers of English who had a greater preference for option 1 than native speakers (p = .05).

Study preference

On the question of study mode preference, only 21% of students chose to work alone, the rest preferring to work with a partner (35%) or in a group (44%). It is interesting to note the different breakdown relative to gender.

Preferred learning style	Male	Female
alone	**31%**	**17%**
with partner	13%	43%
in group	56%	40%

Comfort, enjoyment and usefulness

Participants were asked to indicate on a five point Likert scale how comfortable they felt, and how much they enjoyed learning on the Web. While a large number of students were already comfortable with the Web at the start of the study (57.2% giving a score of 4 or 5), an even greater number were comfortable at the end of the study (73.1%), with only 1.6% still feeling uncomfortable (Table 1). However, it is important to note the fact that 17.5% felt uncomfortable to begin with. This supports personal observation of students in our computer laboratories, many of whom are mature age women.

More than half the participants enjoyed using the Web at the start, but the improvement in enjoyment at the end of the study was not as dramatic as that for feeling comfortable. However, there was a considerable improvement, especially at the lowest end of the scale, which dropped from 17.5% to 3.2%. The majority of students (65.1%) also indicated that they found using the Web for language learning useful. The improvement for both comfort and enjoyment was highly significant (p = .000). Another significant finding was that the distance learners felt even more comfortable (p = .024). This is not surprising given that they had entered the environment of their own volition.

	Comfortable at start	Comfortable at end	Enjoy at start	Enjoy at end	Useful
Never true	17.5%	1.6%	17.5%	3.2%	1.6%
Generally not true	14.3%	7.9%	7.9%	3.2%	11.1%
Somewhat true	11.1%	17.5%	22.2%	27.0%	22.2%
Generally true	30.2%	30.2%	31.7%	38.1%	41.3%
Always true	27.0%	42.9%	20.6%	28.6%	23.8%

Table 1 – Comfort, enjoyment & usefulness

Relationship between perception of comfort/enjoyment and usefulness

The analysis showed a significant link between students finding the materials useful and their feelings of comfort at the start (p = .012) and at the end (p = .000) of the study, as well as their enjoyment of using the Web at the end of the study (p = .000). The relationship between usefulness and enjoyment at the start of the study was not significant.

What seems to follow from this is that there is value in making students comfortable — ensuring that everything works properly and that materials are enjoyable — and in sustaining their enjoyment.

Relationship between comfort, enjoyment and length of study

The analysis showed that the longer students had spent learning the language they were studying, the more comfortable they were using the Web both at the start ($p = .015$) and at the end ($p = .009$) of the study period, and the more they enjoyed using the Web at the beginning of the study period ($p = .045$). Length of study of the language, however, did not determine whether students enjoyed using the Web by the end of the study period.

These findings suggest that it is important to give special attention to beginning students in a subject. Personal observations confirm that students unsure of the subject matter feel less comfortable in computer-based teaching environments.

Evaluation of resources

Participants were asked to evaluate various aspects of the programs they used for language learning, rating them on a scale from 1 to 5 or 1 to 9. Tables 2a and 2b show the frequency of their average responses, which were calculated by summing the responses for each category and dividing by the number of questions for that category. While results were presented in detail to the developers for summative evaluation, only broad findings are reported here. Responses were very favourable, ranging from 73% to 90% agreeing or strongly agreeing that the objectives were clear, the content was logical, the program was interactive and the navigation easy. Some 75% to 94% rated the quality of the text, graphics, sound and interface as 6 or above on a scale of 1-9. (The text category needs to be reversed since lower ratings represent readability.)

Equally high ratings were given in the section of the questionnaire where students rated their general satisfaction with Web learning on a 9 point Likert scale, including *appeal, interest, enjoyment, relevance* and *challenge*. The mean for each aspect ranged from 6.00 to 7.33 suggesting very high satisfaction with the resources.

	Objectives / Directions		Content & Structure		Interactivity/ Feedback		Navigation	
	Freq	%	Freq	%	Freq	%	Freq	%
Strongly disagree	1	2.1	0	0	0	0	1	2.1
Disagree	2	4.2	0	0	2	4.2	0	0
Neutral	8	16.7	5	10.4	11	22.9	11	22.9
Agree	28	58.3	32	66.7	29	60.4	28	58.3
Strongly agree	9	18.8	11	22.9	6	12.5	8	16.7
Total	48	100.0	48	100.0	48	100.0	48	100.0

Table 2a – Evaluation of resources

	Text		Graphics		Sound		Interface	
	Freq	%	Freq	%	Freq	%	Freq	%
Low 3	1	2.1	3	6.4	1	2.1	0	0
4	3	6.3	3	6.4	4	8.3	0	0
5	18	37.5	6	12.8	7	14.6	3	6.4
6	18	37.5	13	27.7	3	6.3	19	40.4
7	7	14.6	9	19.1	10	20.8	13	27.7
8	1	2.1	10	21.3	14	29.2	7	14.9
High 9	0	0	3	6.4	9	18.8	5	10.6
Total	48	100.0	47	100.0	48	100.0	47	100.0

Table 2b – Evaluation of resources

An analysis of which aspects of the Web materials contributed to the perception of their usefulness showed that the most important were *clear and logically organised content* (p = .004), *clear objectives* (p = .013), *meaningful feedback* (p = .008), and *easy navigation through the program* (p = .039). This has clear design implications for creators of these programs. A surprising absence from this list is any reference to the quality of graphics when popular opinion attaches great importance to it.

Relationship between time spent on the Web and other variables

Participants spent between 5 and 50 hours working with the Web materials. A large percentage (39%) worked for about 10 hours, while a small number (10%) spent more than 40 hours online. Non-native speakers of English spent significantly more hours online than the native speakers ($p = .000$). The more comfortable respondents were at the start of the study period, the more hours they spent using the Web materials ($p = .024$). They also spent more time using the program if they rated highly clarity of objectives ($p = .006$), or the quality of the graphics ($p = .040$). The findings related to graphics are particularly interesting in the light of the fact that students did not find materials more useful if they enjoyed the graphics (see above). However, if they are prepared to spend more hours working with Web materials as a result of good graphics, perhaps designers should spend more time on integrating strategically well placed graphics, provided, of course, that they do not interfere with access time. An amusing but pointed comment was offered at one presentation of this study: "Perhaps they spent longer on the Web because they took so long opening the graphics!"

Language learning strategies used

Students were asked a series of questions relating to the strategies they used when learning a new language. For each strategy they were given a score out of five. With the exception of *memory* and *affective* strategies, well in excess of 80% of participants clustered around the midpoint, scoring between 3 and 4 for each category. While over 80% of students scored between 3 and 4 for *memory* strategies, this category differed from the others because 75% scored 3 (Table 3). The least favoured strategy, which supports the general trend in the literature, was the *affective* one with a much larger percentage (37.5%) scoring 2. However, scores for this strategy were significantly higher for the non-native speakers of English ($p = .000$).

Score	Memory	Cognitive	Compensation	Metacognitive	Affective	Social
1	0%	0%	2.0%	2.0%	8.3%	2.0%
2	16.3%	10.2%	4.1%	4.1%	37.5%	8.2%
3	75.5%	44.9%	49.0%	55.1%	45.8%	44.9%
4	8.2%	42.9%	40.8%	35.7%	8.3%	40.8%
5	0%	2.0%	4.1%	2.0%	0%	4.1%

Table 3 – Language learning strategies used

Relationship between language learning strategies and other variables

Analyses were conducted to investigate the differences in the ratings of usefulness, enjoyment and level of comfort with Web learning as they related to the different learning strategies used. The analysis did not support the hypothesis that certain learning strategy strengths will have an effect on the way language students perceive Web learning.

There was, however, a significant relationship between study preference and use of *affective* strategies (p= .007). Those with low *affective* strategies preferred to work alone, those with medium affective strategies preferred to work with one other person, and those with high *affective* strategies preferred to work in a group. Surprisingly, no other significant findings emerged for study preference.

Relationship between age and other variables

For analysis purposes, students were divided into two groups: those younger than 30 and those older than 30. Nonparametric tests using two independent samples showed that the younger students were more comfortable with the Web at the start (p = .001) and more impressed with the graphics (p = .002). The older students preferred the option of using the Web out of class hours as an addition to face-to-face teaching (p = .000), had been studying the language for a longer period of time (p = .007), and spent more time using the Web materials (p = .000). These findings appear to support the commonly held view that younger people respond well to graphics. They also support current statistics that show the highest use of the Internet in Australia is by 30-49 year olds (Roy Morgan Research). The reason for this may well be that this group has easiest access to the online environment.

Relationship between gender and other variables

Analysis of variance showed three significant differences between males and females. Males spent longer using the Web than females (p = .000); had a greater preference for the face-to-face option with the Web materials to be used in class (p = .009); and rated clarity of objectives more highly (p = .002). While the first finding supports the general trend in the literature, the other two are difficult to interpret. Perhaps males — who are certainly a minority of language learners — are less confident and prefer the extra support provided by a teacher, and have lower demands on what constitutes a clear objective. There is material here for further investigation.

DISCUSSION

Judging from the overall responses, there can be no doubt that the Web is perceived as a viable environment for language learning in tertiary settings, especially as an add-on to face-to-face teaching.

The somewhat surprising support for using the Web in class rather than independently should be read in the context that 43% of the students had used this option. These findings appear to corroborate the results of another study (Felix 2000) which suggests that students tend to prefer the option they are used to rather than consider other possible solutions. This is further supported here in the preference expressed by distance learners for distance education or for using materials on their own. This suggests that students' motivation for learning in distance mode may play an important role in their judgement of the environment. Students who have voluntarily enrolled in a course offered by distance tend to be highly motivated and are likely to cope well in isolation. By contrast, online learning was not something our face-to-face learners were expecting, and there has been substantial anecdotal evidence that university students resent online learning if they see it as a cost-cutting exercise. The strong wish to preserve the traditional classroom environment may well be a reaction to that. This speculation is supported by De Ferrari et al (1998), who found that traditional students are slower to adopt a new learning paradigm because it is significantly different from the one to which they are accustomed.

Another possible explanation is that language students may need more immediate support from a teacher. The fact that the highest ratings for this option came from male students and non-native speakers of English, both traditionally less confident language learners in Australia, lends some support to this view.

What can be concluded, however, is that responses on the whole were overwhelmingly positive. This finding needs to be seen in the context of the very high rating given to the resources themselves. Another group, originally committed to participating in the study, pulled out at the last moment because the students were so frustrated with technical difficulties that they refused to take part. Had they been included, results relating to comfort, enjoyment and usefulness would have looked dramatically different (Hara & Kling 1999). In fact, two mature-age women struggling with the materials in the computer laboratory became so disheartened by the combination of their own computer illiteracy and the instability of the resources, that they claimed to have lost all interest in studying the language. The important relationship between reliability of technology and student satisfaction was demonstrated in a study involving 529 students participating in courses delivered via Virtual Classroom^{TM} (Hiltz 1997). The study investigated student satisfaction with technical aspects of accessing and processing subject materials, and found that students' satisfaction and performance were comparable to those in traditional face-to-face courses.

While there will always be students who resist technology (Finkelstein & Dryden 1998; Felix 2000), severe negative reactions can at least be avoided by proper testing and trialling of programs before they are introduced for student use. This is particularly important if assessment is to be included.

In the current study, students reported high levels of comfort and enjoyment while working with Web materials, although some 17% reported feeling uncomfortable to begin with. Not surprisingly, distance learners and younger students felt significantly more comfortable and beginners significantly less so. This suggests that attention needs to be given to proper induction sessions for students new to the subject (this had not been the case in the group that dropped out). A very encouraging finding was that levels of comfort and enjoyment improved significantly over the course of the study period — something that refutes speculations about a novelty component in the use of technology in learning environments. From experience, students tend to persist with activities they find useful, especially when they are linked to what is needed for exams and assessments. The fact that they also rated the materials as useful may explain this finding.

Few surprises emerged in the case of the particular elements that influenced students' perception of the usefulness of the materials. They found the resources most useful if the objectives were clear, the content clear and logically organised, the feedback useful, and navigation easy, supporting good-practice design principles. The fact that there was no relation between the quality of sound and graphics and perception of usefulness was unexpected, but may have to do with the fact that all the ratings were very high. Had these elements been rated below average, it may well have influenced how useful students found the program. Their perception of usefulness was also significantly affected by the fact that students felt comfortable at the start and at the end of the study, and were still enjoying the experience at the end. These findings appear to support the view that making students comfortable, and the learning experience enjoyable, may have salutary outcomes (Felix & Lawson 1994).

One significant finding related to feelings of comfort was that students were prepared to spend more hours working with the materials. The other elements contributing to this outcome were the quality of the graphics and the clarity of the objectives. Gender, age and language background also contributed to the time spent studying online, with males, older students and non-native speakers of English using the materials for significantly more hours. A reason for this could again be a lack of confidence in this group, or it may be that mature-age and non-native speakers are more diligent, and that males spend more time on computers and the Web. If the latter is true, the inclusion of computer-based learning might be a useful motivating source to attract more males to language studies.

The finding about male work rates on the Web is supported by a large scale study on the use of asynchronous learning environments (computer conferencing and the Web) in a US university setting (Ory et al 1997). While the study, which included 2,151 students in twenty-three courses, found no significant gender difference overall in the use of, and attitudes towards, computer-based learning, observations showed that females used their computers more for communication with teachers and fellow students, while males spent more time on the Web.

Very few findings related to language learning strategies and study preference emerged. Strategy use was fairly evenly distributed over the categories with the exception of affective strategies, which were the least favoured overall, especially for native speakers of English. Preference for these strategies was also highly correlated with a preference for working in groups. It is therefore not surprising that no significant relationship between strategy strength and perception of the environment was found for the group as a whole. It was surprising, however, that no other relationships relating to study preference were established when it might be assumed that online environments lend themselves especially to students who prefer to learn on their own. However, the fact that only 16% of participants actually worked on their own may have influenced the results.

The message from this study is strongly encouraging. The tertiary students involved in Web-based learning here not only reported high levels of enjoyment and comfort, but these levels increased over time. Since they also found the activities useful, it can be concluded that they perceived the environment as viable for language learning, especially as an adjunct to face-to-face teaching. It is important to note, however, that results here were undoubtedly influenced by the high quality of the programs that were delivered, both in terms of their design and in the clarity and usefulness of their objectives. The group that pulled out because they could not cope with what they were offered obviously sends a very different message.

The following study which involves students in different settings and using different materials, might throw some light on this speculation. The results of this study were reported at the ASCILITE and EUROCALL conferences in 2000.

Study 2

Is the Web a Viable Language Learning Tool? Tertiary, Secondary & Primary Students' Views

Focus: Learning styles

METHOD

Participants

Since two of the reasons for carrying out this second study were to increase the total sample and to include younger students, an invitation to participate (available from the author) was included in as many relevant professional publications and discussion lists as possible worldwide. Initial responses were copious, but not all interested colleagues ended up participating. The reasons most often given were lack of time, or that students had not used Web resources sufficiently to comment adequately. Final participants were two tertiary institutions, one in Israel and the other in the United Arab Emirates, both teaching EFL; four secondary schools, three in Melbourne and one in Brisbane, teaching Japanese, Spanish, French and German; and two primary schools, one in Melbourne and one in Brisbane, teaching French and German. We were a little concerned whether the primary school children had the capacity to complete the questionnaires, but were assured by their teachers that they did. We would have preferred a more even distribution between secondary and primary children, but this could not be achieved this time around.

Students' backgrounds

In this second study, there was a more even distribution between males and females, although females (60.4%) still outnumbered males (39.6%). Respondents were much younger and the age range narrower, extending from 10 to 28 (primary 10–12, secondary 12–18 and tertiary 18–28). Eight language backgrounds were represented, with 42% specifying a language other than English as their native language. Approximately half of those from a non English-speaking background were students of English in the two overseas institutions, while the rest were school children who came to Australia at a relatively young age, or who may have been born in Australia, but still consider that their native language is something other than English because it is spoken in the home. As with Study 1, for the purposes of simplicity and clarity, the whole group will be referred to as non-native speakers of English.

Materials used

As in the first study, the online materials and activities used differed slightly between the participants, but on the whole, they consisted of Web-based activities and tasks such as:

- Creating online quizzes in the target language.
- Participating in chatrooms and discussion groups (some only).
- Engaging in listening and reading comprehension tasks.
- Completing task-based cultural projects based on Web sites.
- Writing emails in the target language.
- Using an online concordance program (some only).
- Working with language learning resources such as those used in Study 1.

The biggest difference between the two studies was that, in the first, students were predominantly engaged in the last activity, working with structured materials designed to teach and practise language skills, while in the second, students were mostly engaged in all the other activities. More detailed information can be found in Miriam Schcolnik's chapter in Part 1 and in Appendices 2 & 3.

Procedure

The study was conducted during Second Semester 2000 over approximately 10 weeks in a very similar fashion to that described in Study 1. The questionnaires (online: http://www.arts.monash.edu.au/lc/sill.html) were changed or refined in the light of the experiences and findings in the first study.

Questionnaires

1 **Perceptual Learning Style Preference Survey (Joy Reid)**
The relationship between learning styles and perceptions was a new element in Study 2. As in the previous study, we were only interested in broad correlations, such as "Do learners who favour a visual learning style find Web-based learning more useful?" For this purpose, we used an instrument which calculates a score

out of 50 to determine which of six perceptual learning styles (visual, auditory, tactile, group, kinesthetic, individual) were favoured by the participants. A definition of these can be found in Appendix 1.

2 **Web Experience/Perception Questionnaire (designed by the author)**
This questionnaire was substantially the same as for Study 1 with two changes. The first was the addition of questions to ascertain which of six aspects of language learning the Web was deemed most useful. The second was enlarging the scale used to indicate recommendations about how best to use Web materials in terms of mode from a 4-point to a 5-point scale. In Study 1, we had intended respondents to rank the four modes in order from 1 (worst) to 4 (best), but found that many students gave an equal rating to more than one mode. It was decided that a 5-point Likert scale, in line with the scale used for most other measures in the study, would be more appropriate.

3 **Resource Evaluation (adapted from Gregor Kennedy's CAL evaluation)**
Experience in Study 1 indicated that this questionnaire was too long and contained some duplication, so it was decided that the number of questions could be reduced without compromising the value of the responses. Categories which did not yield discerning information were dropped, and the number of questions in each of the remaining categories was reduced to three key ones. As in Study 1, our main interest was to gauge in a very broad way students' impressions of the quality of resources, so that their responses to the second questionnaire could be put into perspective.

Data analyses

The same method of data analysis was used for this study as for Study 1. One hundred and one valid responses (out of a total of 133 students enrolled) were received for the first and second questionnaires and 80 for the third. Most analyses reported below contain 101 subjects, while those related to the quality of resources contain 80. The total sample was distributed over 16.8% primary, 61.4% secondary, and 21.8% tertiary students. Again, tables for statistical analyses are not included, but levels of significance (set at $p < 0.05$) are given on each occasion. In instances where results of the second study differed significantly from the first, we combined the data (if variables were identical) to see which results might be more reliable.

RESULTS

Mode of delivery

Students were asked to rank on a 5-point scale four modes in which language learning materials might be used on the Web:

- As an addition to face-to-face teaching, with the material used in the classroom.
- As an addition to face-to-face teaching, with the material used in the students' own time.
- As a distance learning resource without access to an online tutor.
- As a distance learning resource with access to an online tutor.

More than half the respondents (55.4%) considered that the best way to use Web materials was *in class as an addition to face-to-face teaching*. This was slightly higher than for Study 1, and appears to support the speculation that students tend to want what they are used to. The least preferred mode was *distance learning without access to a tutor*, with 34.6% giving this mode a rating of 1 or 2. These results support the previous findings.

By contrast with Study 1, however, there was no significant relationship between preferred mode of delivery and language speaking background. When a whole sample analysis was run (adjusting the different scales to match each other), the Study 1 finding was confirmed, that is, non-English speakers had a greater preference (p = .035) for using the materials in class.

There was a significant difference (p = .008) between the age groups in the way they viewed distance learning with access to an online tutor: 47.1% of primary school students considered this the worst option, while 45.5% of tertiary students considered it the second best option. The whole sample analysis confirmed this finding, with an even higher proportion of tertiary students (nearly 60%) regarding this option as best or second best.

Study preference

On the question of study mode, preferences were more evenly divided than in Study 1: 37.6% preferred to work alone, 32.7% preferred to work with a partner, and 29.7% preferred to work in a group.

Unlike in the first study, there was no significant difference between males and females.

Preferred learning style	Male	Female
alone	37.5%	37.7%
with partner	30.0%	34.4%
in group	32.5%	27.9%

The difference between the two sets of results — more participants in Study 1 preferred to work in a group, compared to those in Study 2 (p =·.016) who preferred to work alone — can best be explained by the fact that there were proportionally more males in the second study. The relatively few males in the first study produced the unexpected result that more than 50% of males preferred to work in a group. In the second study, where there were more males overall and more as a percentage of total participants, the percentage favouring each of the preferences was much more even.

There was a significant age-related difference (p = .001) among females: 76.9% of tertiary women preferred to work alone; 66.7% of primary school girls preferred to work in groups (this was the choice of only 7.7% of tertiary women); and 47.2% of female secondary school students preferred to work with a partner. No such marked difference between the age groups held for males.

When the data from both studies were combined however, this difference was not manifested. Instead, overall preferences were very evenly divided between those who preferred to work alone (31.1%), with a partner (33.5%), or in a group (35.4%). These distributions were slightly altered in the breakdown relative to gender, but the data still showed no significant difference between males and females.

Preferred learning style	Male	Female
alone	37.5%	28.7%
with partner	25.0%	38.0%
in group	39.3%	33.3%

Comfort and enjoyment

Participants in this study were even more comfortable than those participating in Study 1, both before the start of the study (p = .005) and at the end (p = .003). This difference was due to the fact that Study 2 had much younger participants. It was the young — pre-tertiary — students who felt much more comfortable. This is not surprising, as young students tend to be more computer-literate than their older counterparts.

While a large number of students were already comfortable with the Web at the start of the study (68.3% giving a score of 4 or 5), an even greater number were comfortable at the end of the study (88.1%), with 65.3% giving the highest score of 5. Those feeling uncomfortable (giving a score of 1 or 2) dropped from 11.9% to just 5% (Table 1).

A little less than half the participants enjoyed using the Web at the start, and while the actual number who enjoyed using the Web at the end of the study (62.4%) was not as high as the number who felt comfortable with it, there was a significant improvement. As with Study 1, the improvement for both comfort and enjoyment was highly significant (p = .000).

	Comfortable at start	Comfortable at end	Enjoy at start	Enjoy at end
Never true	**4.0**	**2.0**	**10.9**	**5.9**
Generally not true	7.9	3.0	17.8	14.9
Somewhat true	12.9	6.9	19.8	16.8
Generally true	27.7	22.8	31.7	31.7
Always true	40.6	65.3	15.8	30.7
Never used before	6.9		4.0	

Table 1 – Comfort and enjoyment

There was a highly significant difference between the age groups in how comfortable they felt both at the start (p = .000) and at the end of the study (p = .005). More secondary (85%) and primary school (76.5%) students than tertiary students (29.4%) were comfortable at the start, while around 94% of primary and secondary students were comfortable at the end of the study compared with 63% of tertiary students. The tertiary students in this study were much less comfortable than their counterparts in the first, especially at the start.

Usefulness

As in Study 1, the majority of students indicated that they found using the Web for language learning useful. There was a significant difference (p = .027) between the age groups with the younger students finding it more useful than the older ones. A combined sample analysis confirmed these findings (Table 2).

	Primary	Secondary	Tertiary
Never true	0%	9.7%	2.4%
Generally not true	0%	16.1%	12.9%
Somewhat true	17.6%	17.7%	23.5%
Generally true	47.1%	41.9%	40.0%
Always true	35.3%	14.5%	21.2%

Table 2 – Usefulness: Combined data

In a more detailed breakdown to determine for which particular aspects of language learning the Web was most useful, *vocabulary learning* (51.5%) and *writing* (47.5%) were clearly ahead, while almost 50% of students judged Web learning not to be useful for *listening* and *pronunciation* (Table 2a).

	Useful generally	Vocab	Grammar	Writing	Speak-ing	Listen-ing	Pronun-ciation
Never true	**6.9**	**7.9**	**13.9**	**9.9**	**21.8**	**22.8**	**28.7**
Generally not true	13.9	11.9	23.8	19.8	21.8	27.7	18.8
Somewhat true	19.8	28.7	21.8	22.8	24.8	21.8	17.8
Generally true	41.6	26.7	27.7	28.7	19.8	16.8	24.8
Always true	17.8	24.8	12.9	18.8	11.9	10.9	9.9

Table 2a – Usefulness related to language skills

Significant differences in the perception of how useful the Web was for *speaking* (p = .000), *listening* (p = .002) and *pronunciation* (p = .006) were found between the age groups. Again it was the younger students rather than the older who found the materials more useful (Table 3).

	Speaking			Listening			Pronunciation		
Rating	Prim.	Sec.	Tert.	Prim.	Sec.	Tert.	Prim.	Sec.	Tert.
1	5.9%	19.4%	40.9%	17.6%	17.7%	40.9%	11.8%	32.3%	31.8%
2	0%	25.8%	27.3%	11.8%	27.4%	40.9%	5.9%	17.7%	31.8%
3	23.%5	24.2%	27.3%	35.3%	21.0%	13.6%	11.8%	16.1%	27.3%
4	35.3%	21.0%	4.5%	23.5%	19.4%	4.5%	52.9%	24.2%	4.5%
5	35.3%	9.7%	0%	11.8%	14.5%	0%	17.6%	9.7%	4.5%

Table 3 – Usefulness for certain aspects by age group.

Relationship between perception of comfort/enjoyment and usefulness

As with Study 1, the analysis showed a highly significant link between students perceiving the materials to be useful, and their feelings of comfort at the start (p = .000) and at the end (p = .000), and of enjoyment at the end of the study. By contrast with Study 1, this study also found a significant relationship between usefulness and enjoyment at the start of the study (p = .004).

Looking at the different age groups, the findings held for secondary school and tertiary students, but not for primary school students, for whom no relationship between any of these elements was found.

Using the combined data from both studies, the analysis showed a highly significant link (p = .000 in each case) between students finding the materials useful and their feelings of comfort and enjoyment, both at the start and at the end of the study.

Relationship between comfort, enjoyment and length of study

Contrary to the findings of Study 1, this study found no significant correlation between the length of time students had spent learning the language they were studying, and their feelings of comfort and enjoyment, either at the start or the end of the study period. Nor could this difference be explained by the difference in age of the participants, because none of the age groups showed any significant relationships between the factors in question. An important difference in the two studies was that Study 1 contained more beginners, which may be the reason why the combined data did not confirm the findings of Study 1.

Evaluation of resources

Participants were asked to evaluate various aspects of the materials they used for language learning, rating them on a scale from 1 to 5. In this study, the number of questions was reduced to three in each category. For ease of comparison, the responses for each category were averaged. Table 4 shows the frequency of these averaged responses. More than 60% of respondents (less than in Study 1) agreed or strongly agreed that *navigation* around the program was easy, and that the *content and structure* was clear and logical. They were least satisfied with *interactivity* (this related to feedback), with only 36.3% agreeing or strongly agreeing that it was satisfactory. This figure was a lot lower than in Study 1.

	Objectives / Directions		Content & Structure		Interactivity/ Feedback		Navigation	
	Freq	%	Freq	%	Freq	%	Freq	%
Strongly disagree	48	100.0	48	100.0	48	100.0	48	100.0
Disagree	10	12.5	6	7.5	6	7.5	3	3.8
Neutral	30	37.5	21	26.3	41	51.3	22	27.5
Agree	28	35.0	42	52.5	27	33.8	39	48.8
Strongly agree	8	10.0	8	10.0	2	2.5	13	16.3
Total	80	100.0	80	100.0	80	100.0	80	100.0

Table 4 – Evaluation of resources

These findings, however, are not surprising as the majority of students in this study were not engaged in structured exercises. In retrospect, this section of the questionnaire was not strictly relevant. While it may still be interesting to report the findings regarding the relative usefulness of individual elements, they have to be viewed in this light. What they may well reflect is the students' general perception, rather than a considered evaluation of their experience. In other words, even though they may not have been exposed to structured online feedback, they might have had a view of its usefulness.

Relationship between evaluation of resources and usefulness, enjoyment and comfort

Unlike Study 1, in this study an analysis of which aspects of the Web materials contributed to the perception of their usefulness showed that only *interactivity or meaningful feedback* (p = .000) was an important factor. This element (p = .025), together with *clear objectives* (p = .035), also contributed significantly to students' enjoyment of the Web.

The analysis for the different age groups revealed that for primary school students only *ease of navigation* contributed to their enjoyment (p = .031). For secondary students, *clear and logically organised content* (p = .007) and *interactivity* (p=.007) contributed to enjoyment, while *interactivity* (p = .001) contributed to their perception of usefulness. For tertiary students *ease of navigation* contributed to their perception of usefulness (p = .002), while *clear objectives* contributed to their enjoyment (p = .021).

The combined data from Study 1 and Study 2, showed that *interactivity or meaningful feedback* (p = .000), *clear objectives* (p = .005), and *clear and logically organised content* (p = .006) were important factors contributing to the perception of usefulness. These same factors (p = .005, p = .024 and p = .012 respectively), together with *easy navigation* (p = .018) also contributed to participants' enjoyment. Only *easy navigation* (p = .029) contributed to perceptions of comfort.

General satisfaction with Web resources

Comments on the second part of the questionnaire where students rated their general satisfaction with Web learning on a 9 point Likert scale, may represent a closer appraisal of what students were involved in. Students gave ratings for how *engaging, appealing, interesting, user-friendly, enjoyable, relevant, logical, challenging, boring* or *confusing* they found the materials. The mean for each aspect was significantly lower than in Study 1, ranging from 5.0 to 5.83 (with boring and confusing reversed), and the mode for seven aspects was 5.0, indicating that the majority of students were moderate in their appraisal of the programs they were using. In Study 1 the range was between 6.3 and 7.0. This may explain the less enthusiastic discursive responses of this group, which are discussed in detail in the next chapter. An analysis by age group showed a similar result, except for four aspects. Primary school aged students found the programs less relevant (p = .003), less challenging (p = .001), less valuable (p = .029), and more boring (p = .017) than the older students.

Relationship between time spent on the Web and other variables

In general, the majority of students in this study spent slightly fewer hours working with the Web materials than those in Study 1. Sixty-six percent worked with the materials for between 5 and 20 hours. Sixteen percent claimed to have spent more than 100 hours on the Web and the rest spent somewhere between 20 and 100 hours. Those using the Web for more than 100 hours were primary and secondary students with 17.6% of primary and 22.7% of secondary students indicating this level, while no tertiary students spent more than 50 hours on the Web.

As with Study 1, non-native speakers of English spent significantly more hours online than the native speakers (p = .008). Similarly, the more comfortable respondents were at the start of the study period, the more hours they spent using the Web materials (p = .025). However, in contrast to Study 1, there was no significant relationship between the number of hours spent using the Web materials and students' evaluation of various aspects of those materials.

Using the combined data from both studies, the analysis showed that students spent more time using the materials if they rated highly *interactivity or meaningful feedback* (p = .035).

Learning Style Preferences

The perceptual learning style preference survey calculates a score out of 50 to determine the major learning style preference. The scores are interpreted as follows:

38-50 = **Major** learning preference

25-37 = **Minor** learning preference

0-24 = **Negligible** learning preference

The majority of respondents had more than one style preference with 33.7% having three major style preferences, 17.8% had only one style preference, and 4% had no major preference at all. By far the most common style preference overall was *kinesthetic*, with 64.4% of respondents having this as one of their major preferences. The least common was *visual* with only 23.8% showing this as one of their majors (Table 5). It is interesting to note, however, that *visual* was strongly favoured as a minor learning style together with *auditory*.

	Kinesthetic	Group	Tactile	Auditory	Individual	Visual
Major	**64.4%**	**45.5%**	**41.6%**	**31.7%**	**41.6%**	**23.8%**
Minor	33.7%	31.7%	41.6%	65.3%	33.7%	61.4%
Negligible	2.0%	22.8%	16.8%	3.0%	24.8%	14.9%

Table 5 – Language learning styles used

Where respondents had only one major style preference, 42% had *group* as their major style. *Tactile* and *auditory* styles were not a major preference for anyone with only one major.

Significant differences in style preferences were found between the three age groups. *Tactile* and *kinesthetic* learning styles were a major preference for 88.2% of primary school students. However, the *tactile* style was a major for only 29% of secondary and 40.9% of tertiary students, while 66.1% of secondary students and 40.9% of tertiary students preferred a *kinesthetic* learning style (Table 6).

	Tactile			Kinesthetic		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
major	**88.2%**	**29.0%**	**40.9%**	**88.2%**	**66.1%**	**40.9%**
minor	11.8%	46.8%	50.0%	11.8%	30.6%	59.1%
negligible	0%	24.2%	9.1%	0%	3.2%	0%

Table 6 – Major style preference by age group

Relationship between learning style preferences and other variables

As with the learning strategies in Study 1, the analysis did not support the hypothesis that certain learning style preferences will have an effect on the way language students perceive Web learning.

This study also investigated for which particular aspects of language learning the Web was most useful. There was only one significant relationship (p = .039) between learning style preference and usefulness: those whose major learning style preference was *individual* considered Web-based learning more useful for writing than those with this style as a minor or negligible preference.

The relationship between *group* as a major learning style preference, and a study preference for working in a group was, predictably, highly significant (p = .000), as was that between *individual* as a major, and a study preference for working alone (p = .000). This result supports the reliability of the data. Not so predictable was the equally significant relationship (p = .000) between the *visual* learning style preference and study preference: 66.7% of those for whom *visual* was a major preference favoured working alone, while 60% of those for whom it was a negligible preference favoured working in a group.

Only the *individual* learning style preference had a significant correlation with three preferred modes of delivery — face-to-face teaching using Web materials in class (p = .001), face-to-face teaching using Web materials outside class (p = .037) and distance learning without access to a tutor (p = .029). The findings, however, are very mixed and difficult to interpret. Those for whom *individual* was a major preference, were more likely to favour face-to-face teaching and using Web materials either in class (71.4%), or alone in their own time (59.5%), while only 44% and 12% respectively of those with *individual* as a negligible style preference considered these options to be the best. But 40.4% of those for whom *individual* was a major preference considered distance learning without access to a tutor as the worst option, while 47.3% of those for whom it was a minor preference found this to be the best option.

More native English speakers had *tactile* (p = .005) and *kinesthetic* (p = .000) as a major learning style preference than non-native speakers of English.

Relationship between gender and other variables

Analysis of variance showed five significant differences between males and females. As with Study 1, males rated clarity of objectives more highly (p = .041) than females. This finding is particularly interesting since it was difficult to interpret the first time around, and we were tempted to dismiss it as not significant as so few males had been involved. In the context of these larger numbers, however, the findings look more robust.

By contrast to Study 1, more males indicated that distance learning with access to a tutor was the best way of using the Web (p = .016), and that the content of the Web materials used reinforced their previous learning (p = .023).

With regard to the new variables investigated, more females than males (p = .013) found the Web useful for speaking. Males had a greater number of learning style preferences (p = .027) with 60% having 3 or 4 compared to more than 50% of females having fewer than 3.

An analysis of the total sample found only two significant differences between males and females. More males than females preferred face-to-face teaching with Web materials being used in class ($p = .013$), and more males preferred distance learning with access to a tutor ($0 = .031$).

DISCUSSION

We will discuss here the combined results of both studies. General conclusions and recommendations will follow the discursive section.

Mode of delivery

The results of the two studies were very similar. Overall, the preferred way of using the Web was within face-to-face teaching in class, while the worst option was distance education without a tutor. These results may be an example of the way that students opt for what they already have. Distance learners were more favourably inclined towards distance learning, especially with an online tutor — a result that supports the view that students choose what is familiar.

Where the various age groups were concerned, no significant differences emerged, except that the primary students had an especially poor view of distance education with a tutor. By contrast, this option was highly rated by adults, especially in the results of the total sample. It may well be that this sort of judgement is beyond the younger students.

Where language background was concerned, non-natives showed a higher preference in Study 1 for using the Web materials in class. While this did not emerge in Study 2, an analysis of the combined sample confirmed this finding. This appears to support the speculation that these students are more dependent on the extra support from a teacher.

Study preference

Results in the two studies were quite different, especially where gender and age differences were concerned. While the first study suggested a strong preference for males to work in groups, this result was not confirmed using the combined larger sample. Findings related to differential preferences by females related to age were similarly not confirmed.

Looking at the combined analysis, preferences were fairly evenly distributed between, in ascending order, *alone, with a partner*, and *in a group*, but the differences were not significant. However, even this variety of study preference has great implications for teaching approaches and design challenges, since programs should ideally take the different preferences into account.

Comfort and enjoyment

While the results in the two studies were somewhat different, on the whole students already felt quite comfortable to start with and enjoyed the experience, and these feelings improved significantly over time. Younger students, both secondary and primary, felt even more comfortable, as did distance students. These results are not surprising when we know that younger students are more computer literate, and that students learning by distance have done so by choice.

By contrast, a considerable number of tertiary students felt uncomfortable to begin with, especially in the second study where only 29% felt *generally* or *always* comfortable at the start. Similarly, while those in the first study claiming to be always uncomfortable (17%) felt much more comfortable by the end with only 2% remaining always uncomfortable, the percentage of tertiary students feeling *always* uncomfortable in the second study remained higher at 9%.

This result may have been related to the fact that the latter group rated the resources used less favourably — a reaction that may also have been the reason for respondents in the second study finding the experience less enjoyable than those in Study 1. This appears to confirm our speculation that the positive results in Study 1 were largely driven by the students' very high rating of the resources.

Usefulness

The majority of participants in both studies found the materials useful, with the younger students finding them significantly more useful. The reason for this may have been that the younger students, both primary and secondary, also felt more comfortable than the tertiary students.

It is interesting to note that the primary students found the materials simultaneously more useful and more boring. This supports findings of a previous study (Felix 2000) which established an inverse relationship between what students found useful and enjoyable. In that study, results suggested that many students think that useful learning materials cannot also be enjoyable.

The breakdown of the elements for which students in Study 2 found the Web most useful, did not actually yield much discernible information, possibly because of the differences in the activities to which students in the second study were exposed. It would have been more desirable to have canvassed the students in the first study about this, since they were involved in more structured activities.

Relationship between comfort/enjoyment and usefulness

Results in both studies were very similar. In the first study, there was a strong relationship between feeling comfortable at the start and end of the program, and finding the program useful. There was a similar relationship between usefulness and enjoying the experience at the end. Unlike the first study, the second study also showed a relationship between usefulness and enjoying the experience at the beginning. The combined data showed a strong relationship for all factors. What this clearly suggests is that the Web is a potentially viable environment for language learning.

Relationship between comfort/enjoyment and length of study

The interesting finding that beginning students were less comfortable, both at the start and at the end, and enjoyed the experience less at the start than more advanced ones, was not sustained in the second study, nor by the whole sample analysis. This result is most likely influenced by the fact that the second study contained considerably fewer beginning students. In the light of this, it is probably safe to draw conclusions from the findings of the first study, which suggest that special attention needs to be given to these students.

Evaluation of resources

On the whole, resources were not as highly rated here as in the first study with primary students giving the lowest ratings for some aspects in the general category, finding activities significantly less relevant, challenging and valuable, and significantly more boring than the older students.

The results related to the important question of which particular elements of the materials contributed to their perception of usefulness or comfort and enjoyment, were more mixed than in the first study. There may have been several reasons for this. First of all, the resources may have been less appropriate or less interesting than in the first study, where participants had been especially chosen on the basis of the quality of their materials. Secondly, and more importantly, not all aspects of the questionnaire were strictly relevant to the students in the second study, as they were not exclusively engaged in structured online activities. Thirdly, the youngest students might have had some difficulty in interpreting some of the questions. Fourthly, younger students may well be more critical of online resources by comparison with sophisticated computer games they are used to.

Nevertheless, it is interesting to note that three of the four variables identified in the first study as contributing to usefulness — *clear objectives, ease of navigation, interactivity or meaningful feedback,* and *clear and logical content* — still survived when the data were combined. *Navigation* was not significantly related to usefulness for the whole group in the second study. Again, this may have had to do with the fact that students in the second study had less opportunity to test this aspect. It must be noted that *clear objectives* — which contributed significantly to students' enjoyment in the first study — may have been difficult, if not impossible, for these students to judge. Unlike their counterparts in Study 1, they were not involved in using materials for which objectives were clearly stated at the beginning.

Separating the combined results by age groups, findings for tertiary students were identical to the first study in terms of usefulness. *Ease of navigation, interactivity or meaningful feedback* and *clear and logical content* also contributed to these students' enjoyment while *ease of navigation* contributed to their comfort.

Fewer significant relationships were established for the younger students, possibly for the reasons given above. For the same reasons, these results have to be seen as less reliable and we will refrain from drawing definite conclusions from them.

Time spent on the Web

In both studies, students spent more time working on the Web if they felt comfortable at the start, with non-native students spending significantly more time than the native speakers of English. It is difficult to speculate about the reasons for the latter, but perhaps these students are more diligent than their native counterparts. Since they were not found to be significantly more comfortable in the environment, no other explanation comes to mind.

The relationship found in Study 1 between students spending more time with the materials if they rated *clarity of objectives* highly, was not supported here, neither was the finding that males spent more time using the materials. Since males were also the ones who rated *clarity of objectives* more highly in both studies, this appears to be a curious finding.

The combined data showed that students spent more time on the Web if they rated *interactivity or meaningful feedback* highly. Since data related to the evaluation of individual resource elements in the second study was found to be less reliable, we will restrict our conclusions to the results of the first study only.

Learning styles

While strategies in the first study were fairly evenly distributed, with *affective* the least favoured overall, except for non-natives, results for learning styles were more mixed.

In general, findings were clear and supported the literature (Reid 1998). *Kinesthetic* was favoured as the strongest major, and *visual* as the least. The latter, however, was very strongly favoured as a minor learning style as was *auditory*. Primary children showed a very strong preference for *tactile* and *kinesthetic* — a combination that seems ideal for working with multimedia applications!

In terms of possible relationships between strategy preference and perception of the environment, findings were much less clear. While the *individual* style showed several significant relationships with mode of delivery, these were arbitrary and difficult to interpret. Expectations would have been that significant relationships would be established mainly with options where these students worked alone, but a variety of mixed results emerged. Interestingly, no significant relationship was found between preferring to work alone and any of these options in the first study. Since there is a strong relationship between a preference for working alone and favouring the *individual* learning style, it is odd that findings were so different in the two studies. We are therefore reluctant to draw any clear conclusions from them.

Gender

Findings related to gender were very mixed. The first study showed three significant differences between males and females: males spent longer using the Web than females, had a greater preference for the face-to-face option with the Web materials to be used in class, and rated clarity of objectives more highly.

Study 2 showed five significant differences between males and females. As with Study 1, males rated clarity of objectives more highly than females. By contrast to Study 1, more males indicated that distance learning with access to a tutor was the best way of using the Web, and that the content of the Web materials used reinforced their previous learning. More females than males found the Web useful for speaking, and males had a greater number of learning style preferences.

An analysis of the total sample found only two significant differences between males and females: more males than females preferred face-to-face teaching with Web materials being used in class, and more males preferred distance learning with access to a tutor. Since, overall, there were no significant differences related to age and gender, the different findings in the two studies do not appear to be related to the greater number of younger students included in the second study. The findings here, however, lend some support for the speculation that male language learners are less confident and prefer the extra support provided by a teacher.

Let us now turn to the discursive data before drawing conclusions and making recommendations.

Delights and dilemmas

Perceived advantages and disadvantages of Web-based language learning

Participants in both studies were asked by questionnaire (available online at http://www.arts.monash.edu.au/lc/sill/webexpqst.html) and interview to identify what they saw as the main advantages and disadvantages of using the Web for language learning. A total of 164 students had the opportunity to respond, 17 of whom were primary, 62 secondary and 85 tertiary students. Identified advantages (133) outnumbered disadvantages (90), although many students identified both. We have categorised answers into representative groupings, each time giving the total number of like responses. Full transcripts are available from the author.

Advantages (133)

- Time flexibility (33)
- Wealth of information (30)
- Fun (13)
- Reinforcement of learning (10)
- Variety (10)
- Privacy (8)
- Gaining computer literacy (8)
- Absence of teacher (6)
- Ability to repeat exercises (5)
- Learning culture with authentic materials (5)
- Mixed additional (5)

Disadvantages (90)

- Lack of speaking practice (20)
- Unreliability and slowness (17)
- Absence of teacher (15)
- Distraction (14)
- No interaction with peers (13)
- Inadequate feedback (11)

The list suggests that students reported fairly traditional and commonly held views. It is difficult to ascertain whether these were linked to the particular resources they had been using, or to their general perception of the environment. Judgements in this area may well be coloured by promulgated views on the previous generation of Distance Education (DE) or CAL environments. For example, Taylor and White (1991) reported a preference for face-to-face courses over DE because of the higher degree of interpersonal contact available. This is supported by a national US survey by Clarke (1993) who found that faculty support for DE courses was hindered by concerns about the quality of interaction, administration support, and rewards.

In fact, both influences seem to have been at work here. For example, of the 15 students who expressed negative feelings about the absence of a teacher, 14 had had a teacher present while working on the Web! What may be influencing their judgement, therefore, is a general perception of the environment.

By contrast, most of the comments about the reinforcement of learning and the absence of feedback came from a group of students who had a very structured course which gave them a lot of practice, but where some of the feedback consisted of instructions to look up the answer in the textbook. The comments here, then, seem very specific.

Advantages

What is interesting to note is the greater skewness towards advantages which seems to support the gist of the debate. While aspects such as *time flexibility, reinforcement of learning, privacy* ("the computer does not judge you"), *gaining computer literacy, fun* and the *ability to repeat exercises* have equally been mentioned as advantages in the previous generation of CALL, added elements here were *wealth of information, learning culture with authentic materials* and *variety*. As demonstrated in Part 2, this new environment offers students the unique ability to set off instantaneously on task-based journeys to authentic settings, or to gain information on almost anything they need without leaving their computer. It is interesting to note that the categories, *learning with authentic materials, variety* and *fun*, were almost exclusively generated by the primary and high school students. This is not surprising, however, when we consider the different activities in which these students were engaged. While the adult students had mostly worked with fairly linear and structured online language learning materials, the school students had been exposed to a much larger variety of activities, such as using the Web for task-based cultural projects, the creation of quizzes and cooperative exercises.

We have compiled here representative quotes from the questionnaire, left unedited, in each category giving an indication of how many students had made comments related to the topic and whether they were tertiary (T), secondary (S) or primary (P) students.

Time flexibility (T=23; S=8; P=2)

T You can learn the material any time, anywhere. You can log on when your mind is ready for the challenge. No real tests. Since I work full time and have 2 children, I like the Web course because I can take part from home, even with my kids hanging around — I don't have to leave them with a sitter just to learn a new language.

T You can take as much time as you like on each section without worrying about slowing other students down or going too fast for the rest of the class. It's wonderful for students who are shy about their language skills and want intensive training.

T Set own study pace and class hours, knowing that at certain hours "live" on-line support or back-up is available.

Wealth of information (T=11; S=9; P=10)

T Instant access to other resources (e.g. culture of the country where the language is spoken). Possibility of saving current stage in course on own computer and of "copying" the material for off-line studying when more time is required as well as for easy reference.

P On the web you can get your information in all different languages. It also is good because you get information from all around the world. There are also lots of good sites that you can go to. If you want to you can also get lots of great pictures and information!

T Very quickly to find information, fantastic picture, beautiful words and high technical, update very quickly and exactly and can done alone.

Fun (S=8; P=5)

S It enables you to access games, quizes and other activities that are different to normal class room learning. It makes it more fun to learn.

S It makes it more fun and you get to play games and make up your own games to. You can type you own greeting cards.

P It is fun to learn on your computer.

Reinforcement of learning (T=7; S=3)

T The language learning on the web reinforces what you have learnt in class. It also allows you to see how much you have learnt, how much you can remember, and what areas you may need to study further.

S Everybody can gain access to the same information, and it also acts as a good test for revision purposes.

T It is able to reinforce what is learnt in the classroom.

Variety (T=1; S=9)

S The Web allows more variety of ways of learning.

S Just more innovative ways of learning - through games on the net, and through less common ways of learning which you wouldn't really use in class.

S The variety of different writing styles and vocabulary used extensifies the material the class is exposed to.

Privacy (No embarrassment/pressure) (T=7; S=1)

T No pressure if you make mistakes as only you know.

T Don't feel embarrassed to answer questions when you're on the computer.

T It's wonderful for students who are shy about their language skills and want intensive training.

Gaining computer literacy (T=3; S=5)

T Learning login the computer and how to use it. At first everything was strange and new. It was hard to understand, but now I can go any where in the world with Internet.

S As well as learning the language over the net, we also learn how to use the internet.

T This is the first time I ever used a computer and I have learnt many new and interesting things!

Absence of teacher (T=3; S=2; P=1)

T Don't have personal contact with the teacher. A computer doesn't talk back.

T The computer is more patient than any teacher could ever be.

T I have no desire to deal one-on-one with professors and their petty little egos or tests.

Ability to repeat exercises (T=5)

T Ability to do repeats as often as necessary before proceeding.

T Repetition of exercises. You can do the same exercises until you fully understand them.

T It also allows you to see how much you have learnt, how much you can remember, and what areas you may need to study further.

Culture and authentic materials (T=1; S=4)

S Language learning on the web really opens up the oppertunities when considering culture and customs. It also allows students to use authentic language materials from the country and use them to work with.

S Find the culture behind the language, and also, the way they use their language, as aposed to the "gramatically correct" version we get taught in class.

S One of the best advantages is that one can look up sights from Japan and get an insite to the use of languge from the usuall people who speak it.

Mixed additional

S It serves a wide range of abilities so if you are more confident you can extend yourself more and those that are not as confident are able to stay within their own comfort range.

T It was also useful because you could click on an icon and hear what the words should sound like with a REAL Italian accent!

T Not having to write and rewrite.

T You can concentrate more on what you are doing, you have more time; in the classroom, if you make a mistake you do not really pay attention, in the web you have to think about what you did and why you did it.

T Surprise element in practice "chat" box as to interest topics of who is attending.

The videotaped interviews supported the favourable views expressed in the questionnaires and confirmed the overall positive attitude towards using Web materials as an adjunct to face-to-face teaching. Becoming proficient in using a computer and navigating the Web was frequently expressed as an appreciated bonus. The most interesting observation was of a mature-age male student enrolled in one of the ESL courses who had, in this short space of time, gone from "being scared of computers" and almost computer illiterate to "being in love" with his computer, and having published four short stories on the Web. Here is a shortened but otherwise unedited transcript of the interview:

Interviewer: Did you know much about computers before you started this year?

Student: No. I tell you what....All my children have computers. I was scared to touch computer to turn on or to turn off.

Interviewer: And now? Can you tell me about what you do?

Student: Now, I can go to the computer, I can go to the Internet, I can play anything I want, I can go to research, I can go...I can email..
I can do anything I want!

Interviewer: Do you like reading the information on the computer?

Student: Information, yes, yes.

Interviewer: Or do you like reading it on paper?

Student: Actually…I prefer…I am in love with my computer.

I prefer computer. Certainly, when I see something, its necessary or something…I have… Sometimes it takes me hours and hours to write only one paragraph.

Interviewer: Okay.

Student: Believe it or not.

Interviewer: Sure. No, I believe you, I believe you.

Student: It's interesting too.

Interviewer: Do you like writing on the computer or writing with a pen
What do you prefer?

Student: I prefer computer.

Interviewer: Why is that, do you think?

Student: Ah, first it help me a lot dictation, because my dictation is a little bit….

Interviewer: Spelling? Spelling?

Student: Yes, spelling. Yeah. When, ah… for spelling… When I write straight away it shows me the spelling is wrong. Sometimes I don't go to the computer, I use my Works.

If sometimes the computer does mistake in spelling…

Interviewer: That's a very important strategy too.

Student: Yeah. Yeah.

Interviewer: So you know that you can use the computer for some things but the computer is not the expert.

Student: Yeah. Yeah.

Interviewer: You are!

Student: Yeah. I am…I am…I'm the boss. Not the computer.

Interviewer: Right. So you are building your knowledge of English.

Student: But I improve lots of knowledge in this course.

Interviewer: Wonderful! And I am trying to get you to tell me about these stories. What did you do with the stories that you wrote? Where are they now? Can other people read your stories?

Student: Yes. All my children, they know. They can.

Interviewer: What about other students, any other students here?

Student: I can't force them to read it.

Interviewer: But can they read it?

Student: Yes.

Interviewer: How did they read it? Tell... You are now published?

Student: Yes.

Interviewer: Where are you published?

Student: It is in Internet in this school.

Interviewer: Intranet? Intranet?

Student: Intranet. Yeah. Intranet at school.

Interviewer: How many stories have you published on the Intranet?

Student: Ah, I think...one...two...three...four...I think.

Interviewer: Four. Yes?

Student: Four.

Interviewer: Four, okay. And I think you are the most prolific writer here.

Student: Thank you very much.

Interviewer: And I think one of the best writers I've ever read. I really enjoy reading your stories.

Student: Thank you very much.

Comments about gaining computer literacy are now more prevalent than in the previous generation of CAL and CALL. An interesting observation is that these comments are more often made by women than by men (Ory et al 1997). While women may feel less confident about using technology, the overall trend towards articulating this advantage may have to do with the larger variety of useful skills that can now be acquired in the process. Another explanation may be that students are becoming more conscious of the value of being computer literate. Comments such as those by Castells (1998:92) are increasingly part of the social rhetoric:

> *Information technology, and the ability to use it and adapt it, is the critical factor in generating and accessing wealth, power, and knowledge in our time.*

Disadvantages

In terms of reported disadvantages there were also very few surprises. Interestingly, the positively reported advantage of *wealth of information* seems to have created the newly articulated disadvantage of *distraction*, which was not something especially singled out during the CD-ROM era. Here it was particularly mentioned by secondary students, who spoke of "getting to inappropriate sites" or "getting lost" or fellow students "just checking their e-mail rather than doing the work".

Many students expressed frustration with the *unreliability and slowness* of the Web, but similar complaints were made in the CD-ROM era in environments where hardware was not state-of-the-art enough to support sophisticated software. Interestingly, all these comments in the present study came exclusively from students in two schools, which suggests that their equipment may have been less up-to-date than that of the other participants. This, of course, can have the serious consequences alluded to in Study 1, the worst scenario being that students lose interest in the subject or perceive their learning to be suffering. One of the secondary students had the following comment to offer in the section on advantages:

> *Unfortunately I do not see many advantages. I much preferred working in a classroom and I believe that since I began learning on the Web my Spanish has suffered.*

This view reflects, almost verbatim, the sentiments expressed by two mature-age women in the first study.

The other disadvantages — *lack of speaking practice, absence of teacher, no interaction with peers* and *inadequate feedback* — are also not unique to the Web environment but used to be common complaints in technology-based language learning. What is encouraging about the new technologies is that all of these can be addressed more easily now. Incorporating Web phone or voice recognition software may help with speaking practice, and there is no reason why students cannot speak to each other as part of the learning process, especially in collaborative local settings (see Part 2). The presence of the teacher is also now fostered more easily through, for example, discussion groups, chats and MOOs. The provision of feedback is getting better and better as sites are becoming more sophisticated, and anyway, we have to keep in mind that most students in Study 2 did not actually work on sites providing feedback. A number of the comments in this category related, therefore, to the teaching process rather than the Web resources used.

A selection of unedited students' comments:

Lack of speaking practice (T=9; S=11)

T 1 BIG disadvantage is the pronunciation! I can't train my pronounce.

T It lack the speaking and listening, which are very very important.

T It was too focussed on the grammar aspects and not enough on the oral aspect of the Japanese language.

Unreliability and slowness (S=10; P1)

P Sometimes the computer stuff's up or the internet is down and you can't get on.

S You can't always reley on the machine, it can crash or freeze at any time.

S Technology can still be unreliable at times, eg. servers clogged. This can hamper when using the internet for a subject with time constraints.

Absence of teacher and personal instruction (T=12; S=3)

T With a new language it is vital to have a teacher not just a computer.

T The disadvantages are that if you don't know or understand something you are not able to ask the computer for help. You need the help of the teacher to explain things.

S You don't have a teacher, you can't ask questions and there is nobody to evaluate your performance.

Distraction/lack of motivation (T=5; S=9)

T The problem is staying motivated. Work, vacations, etc. all intrude on the half-hour a day I'd like to spend on learning the language.

S People not doing there work and instead looking up porn or checking email.

T It is unstructured, so it is easy to lose motivation and it is easy to "never make time for that".

No interaction (T=9; S=4)

T No peers to talk with

T Listening to the language being spoken. On a web-based learning center you only get small sound bites. In a classroom, you can hear and participate in longer exchanges.

S We wouldn't have the interaction of the other class mates

Inadequate feedback (T=5; S=5; P=1)

T No feedback of what the correct response was.

T That there's no solution provided when I get something wrong.

T The computer will not let you move on until the right answer is chosen.

As in the advantages, the video-taped interviews supported the gist of what was said in the questionnaires. It is interesting to note that the school students' perceptions of both advantages and disadvantages are supported by a study carried out with 11-14 year old children in Canada (Litke 1998). What was noticeable here, though, was that some of the secondary students were quite hostile to the environment. This is not something unique to this study, but has been observed by the researcher in several previous investigations. Teenage students sometimes express themselves in hostile terms, either towards the environment being investigated, or towards their teacher. Since, on the whole, these students were very sensible and constructive, we have included here only one such unedited example:

> *well, if students are stuck and need help....where are they going turn to? make a distance call, just for a question?......i don't think so maybe some students can't pronounce things properly....overall i reckon it develops heaps of problems wasting money on an education with no meaning seriously..not even the web course...or the net have all the answers... i feel for all the people who are wasting their time god help them!!! tutors are more worthwhile please!!!!.. like these people are learning losers!! ripping people off is a crime disgrace to the human society go get help...*

Discussion

The results are mixed. They are not a ringing endorsement of the Web, but neither are they a stinging rejection of it. In numerical terms, the weight of responses tilted towards the advantages, and the flavour of the interviews was strongly positive.

Conclusions have to be tentative, and we need to keep in mind the obvious entanglement between judgements made in the context of what students had themselves experienced here, and their general views on the subject.

The most obvious example of this interference was the identification of the absence of a teacher as a disadvantage, when all but one of the students commenting on this actually had a teacher. Another example may be the interesting complaint that was repeated several times, but only by the school children, that bad things happen on the Web. There was a reference to advertising, but what the students meant by this is that "inappropriate" sites can turn up on the screen for all sorts of reasons, like mistyping. One comment suggested that students — other students, that is — visit pornography sites instead of doing proper work at the computer, but the great weight of comment was hostile to the intrusions.

There was a difference between the two studies. In the first, positive responses outweighed negative 2 to 1. In the second, the school children were noticeably more negative, even though advantages still outnumbered disadvantages. Since a lot of their criticism focused on malfunctioning technology, and since they did not evaluate the resources as highly as the first group, their criticisms would undoubtably have been driven by this.

Indeed, a positive interpretation of the results may be that many of the disadvantages cited are both temporary and fixable. If that is so, we can expect the balance to swing even more firmly towards advantages over time. And this is surely so where the technological disadvantages are concerned. Many criticisms will disappear with better machines and, above all, with access to much greater bandwidth. By contrast, pedagogical disadvantages may be more resistant. But with determination combined with high levels of expertise among teachers and purposeful planning of tasks, they too, may be whittled away.

Technology

There were two resoundingly strong votes for the technology. The first was the time flexibility it offers. This was particularly true for the adult students, and probably had to do with the fact that a proportion of them were distance learners, and that older students have more commitments outside their studies and so are in greater need of flexibility.

The second was in the shape of the windows that the Web opens on to the world. Interestingly, the focus was almost entirely on Web sites and the information that they provide, and not on people who might be met over the Internet. This, however, was surely a reflection of the way that the Web was being used here — as a teaching and practice tool and a library of information, rather than as a tool of communication.

The complaints about the technology were, however, strong and diverse.

One is as simple as bandwidth and server capacity — getting on to the Web can be a frustratingly slow process to begin with, and the funereal pace of downloads can add to the negative experience.

Beyond this, the complaints about complexity are not going to be so easily dealt with. The Web is an immense world, and it is undoubtedly true, as the students say, that it is hard to find a way through the complexity and easy to get lost. The search for information is not guaranteed to end successfully. Since that is the nature of the Web, there is not much to be done about it, though teachers can at least provide a structure for Web activities to avoid the problems as much as

BEST COPY AVAILABLE

possible. (Some would argue that this would defeat the purpose of using the Web in education.)

The focus of complaints is the poor use of time that computer work can generate. Not all students agree. For example, some think that work at the computer is likely to be much more concentrated than in a classroom, which provides plenty of opportunities for students to slip away into their own worlds — but the complaint about unproductive time is strong. This is particularly interesting in the light of the claims of some of the early meta-analysis research (see Introduction) where the focus always was on saving time.

One common and obvious criticism was to do with the inability to speak on the Web and the lack of pronunciation models. The latter complaint is puzzling. Monitored pronunciation practice may not be easy to provide, but sound is readily available, if not (as one student remarked) in the form of extensive speech, rather than as individual words or sentences. An obvious explanation is that the complaint reflects the fact that not all students had been exposed to listening tasks. As can be seen in Part 2, access to good quality sound can now be expected in almost all languages. Addressing the speaking problem, however, will be a great challenge in distance education, and while technology is available, cost, time and expertise considerations, as always, get in the way.

Pedagogy

There are clearly pedagogical advantages to the Web, like the opening to a vastly wider world of culture that it provides, and the way that it can engage students in the sorts of experiential learning activities that they clearly appreciate. The number of times that the word *fun* was used, especially by the school-aged students, says a lot about the potential.

An important element is student control of the learning process — the ability to work at their own pace. This is obviously an advantage for distance students, but it is attractive for students in a normal classroom as well, as it enables them to go back over material without fears of holding up the rest of the class (or exposing themselves to embarrassment). Naturally, for this to be possible, the work they want to do has to be available on the Web.

The downside to individual learning in front of a computer is isolation. There is a concern about this, and several students displayed an appreciation of classroom interaction as part of the learning process. This, of course, is more an observation of the teaching approach than a criticism of the potential of the Web. One encouraging possibility for teachers is that the new technologies offer the possibility of increasing students' choice. Depending on their preferences, students can be engaged in cooperative activities or left to solitary work, something not as easily sustained without computers.

For some students, the absence of the teacher is seen as a big advantage (there can be a privacy aspect at work here), though the hostility with which some opinions are voiced, especially by some of the secondary students, suggests a breakdown in a particular student-teacher relationship, rather than a considered rejection of any role for teachers in learning.

However that may be, the weight of comment is powerfully in favour of teachers who are seen most cheeringly as a valuable source of feedback, guidance and answers to questions, rather than, at the extreme, as a self-centred control freak.

The question of feedback looms large in student views, with many complaints about the unhelpful nature of what is displayed on screen (the student who praised the computer for the help it provided when a point was not understood, was unique in all the groups). Computers should be able to provide useful feedback, provided designers make it a high priority. There have been great improvements over the past few years, especially in Intelligent Tutoring Systems (see Heift 2000), but there is still huge potential for further refinement.

Even the best approach is unlikely to be good at answering questions that might arise spontaneously at any moment during a work session. Tutors available by email 24 hours a day for immediate answers could solve the problem, but, as we have seen in Part 2, that is not a common service even in commercial Web-based courses, and it is never likely to be provided by the class teacher to students in the class.

General conclusions, implications and recommendations

The strong general conclusion to be drawn from our quantitative investigations is that the Web is potentially a viable medium for language learning. This conclusion is supported by the fact that, in the qualitative data reported, advantages outweighed disadvantages to a great extent, especially when technical problems are discounted. In saying this, we emphasise that we are talking about online learning in a broad sense. The participating students were engaged in a variety of approaches to Web learning; all had access to a teacher, either face-to-face or by e-mail; and the majority were using the Web, not on its own, but as an additional resource to face-to-face teaching. The strongest preference was to use the Web within face-to-face class teaching, while the weakest was for distance education without a tutor. Individual learning styles, strategies and preferences did not appear to influence perceptions of comfort, enjoyment and usefulness of materials.

Ambiguity of the responses

An important question that was commonly generated by the responses was whether students were making judgements in terms of their own experience of the Web, or of general opinions that they had formed independent of that experience. Both quantitative and qualitative results pose this question.

The teacher issue seems to have been particularly mixed, and appears to have been most heavily influenced by general perceptions rather than the students' actual experience.

There is, however, no indication that the use of technology is any threat to the survival of teachers. In fact, the contrary is true. This finding is well supported in the literature. More and more practitioners and constructive critics are coming around to the view that the Web's best potential lies in adding quality to teaching and learning environments rather than in replacing them (White 1999; Feenberg 1999; Owston 1997).

Comfort, enjoyment and usefulness of materials

The studies show that learners of all ages feel comfortable in the environment and enjoy it. If this is not the case right at the beginning, then at least comfort and enjoyment grow with experience over time — a fact that argues against the commonly suspected novelty effect. A proviso here is that students should have access to robust software and reliable hardware. And while there will always be the odd student who resists the approach for a variety of reasons, this does not undermine our general conclusion.

Of the groups, beginners were the least comfortable, and distance students and younger students most comfortable. These findings are not surprising. Beginners have to deal with a new environment as well as a new subject, so they might easily find the experience less satisfactory. For this reason, particular attention needs to be paid to helping them to come to terms with the challenges. By contrast, young students might be expected to be most comfortable, given that they are more computer literate and hence more confident and enthusiastic (Papert 1993), and that they may anyway possess a higher degree of adaptability and flexibility, and be quicker at learning new modes.

By contrast, our distance students here had explicitly chosen this mode of study, so they might be expected to perceive it differently (and more favourably) from local students. All the same, the fact that they were more comfortable with it — at least, as long they rated the resources highly — is a strong signal that there is a future for language learning over the Web in distance education.

A clear majority of students found the Web useful for language learning, with younger students more strongly of this opinion than older students. An important finding was that across the entire group, students found materials most useful if they felt comfortable and enjoyed the experience both at the start and at the end of the period of investigation. This clearly suggests, as in other teaching situations, that making students feel comfortable in the environment, exposing them to activities they are likely to enjoy, and sustaining their interest over time will have a beneficial effect on how useful they find the work.

Impediments to Web-based learning

Our studies confirm strongly that the biggest hindrance to learning with technology is malfunctioning technology. This has been reported throughout the CALL research, and Web-based approaches are no exception (Schifter 2000; Hara & Kling 1999; Owston 1997; FuturEd Report 2000). On the contrary, server capacity and bandwidth pose additional problems not encountered in the previous generation of CALL. As always, therefore, a very strong recommendation is for Web resources to have been fully tested and for students to have been trained in their use before they are integrated into the curriculum.

In this context, care needs to be taken when other people's sites are included if malfunctions are to be avoided. We therefore suggest the following precautions:

- Only stable and frequently updated resources are worth considering.
- If they are used frequently, the possibility of downloading the entire resource on a local intranet or creating mirror sites should be negotiated with the author.
- Teachers need to be fully versed in the use of the resources.

More detailed discussions of constraints on a wider scale can be found in the sources given above.

Mode of delivery

Choosing between options in a hypothetical manner must naturally be influenced by the students' own situation, experience and motivation. Overall, the preferred way demonstrated here of using the Web was within face-to-face class teaching, while the least preferred was distance education without a tutor. Our results may be a further example of the way that students opt for what they already have (Felix 2000), with distance learners, for example, more favourably inclined towards distance learning, especially with an online tutor. We cannot, therefore, make clear recommendations on the basis of our investigations about what might be the single best option for delivering online materials to students. In the context of what students were exposed to here, we can conclude, however, that students are receptive to a variety of modes so long as they have access to a teacher either face-to-face or by email. The fact that the most frequently identified advantage in the qualitative data was time flexibility, supports speculation that students of all ages are quite prepared to use materials in their own time. This, therefore, constitutes another reason to think that language learning at a distance is a viable option, albeit a challenging one, as is well documented by the distance learning providers in Part 1. The challenge lies in providing meaningful feedback structures, support mechanisms and communication facilities.

An interesting finding was that male and non-native students were most dependent on face-to-face contact. Their strong preference for face-to-face teaching, with Web materials being used in class, lends some support for anecdotal evidence that these learners are less confident language learners in the Australian environment, and need the extra support provided by a teacher. Just as with beginners, it might be sensible, therefore, to give special consideration to the needs of these students when designing materials.

Study preferences, learning strategies and learning styles

One thing emerged as strikingly obvious: in any teaching situation we are dealing with very heterogeneous groups. We have always known this, but it is interesting that it emerges strongly from an investigation that included many other aspects of interest. While other variables under investigation, with occasional exceptions, showed definite trends, the greatest breadth of variety among students was produced by study preferences, learning strategies and learning styles.

Before discussing this further, let us briefly consider the distinction between the three:

Study preference: Preferring one method of teaching/learning to another.

Learning strategy: Adopting a specific action in the acquisition of knowledge and skills.

Learning style: Favouring a habitual mode in the acquisition of knowledge and skills.

Naturally there is a great deal of overlap between the categories that has been confirmed by the data here. So what does all this mean in the context of the classroom, and more specifically, of potential Web-based learning?

Where study preferences are concerned, an even distribution between three different preferences can be expected, so it would be logical to divide any given group into three. However, depending on constellation, there may be very lopsided distributions in the classroom, making the challenge of addressing individual preferences rather daunting. All the same, data strongly argue against a uniform approach, such as having the entire class engage in cooperative learning, or in solitary work in front of a computer in a laboratory. This confirms concerns expressed in earlier research (Felix 1999; Levy 1997) about some students resisting cooperative learning approaches.

What was a little surprising was that no significant relationships were found between study preferences and any of the variables under investigation. One might have expected that preferring to work alone would emerge as a special strength in Web-based learning, but this was not the case here. The findings, however, were no doubt influenced by the fact that the proportion of students who actually worked on their own was very small. A larger contingent of distance learners might have generated quite different results.

Where strategies and styles are concerned, it was not surprising to find no consistent relationships between these and students' perception of various aspects of the environment, because individual ratings were fairly evenly distributed across the range.

Keeping in mind that our studies looked at broad relationships only, what we can conclude is that students' learning preferences, strategies and styles do not appear to be influencing how they perceive their personal comfort when working on the Web, or their enjoyment of the environment, or how useful they find the materials for language learning. More detailed case studies investigating how students actually interact with the technology, such as van Aacken (1999), Hoven (1999) and McLoughlin (1999) will throw further light on the subject and inform design approaches more accurately.

What we can do with the new technologies to deal with the heterogeneity, which includes, at least in Australia, a large variety of cultural backgrounds, is potentially very exciting, even if we are usually faced with fairly severe resource limitations. We have the means to produce applications, resources and activities that can address differences in strategies and styles, and cater more fully for a broader range of student needs. Some contributors to Part 1 address what can be done on a small scale at least.

Even though no significant relationships were found between study preferences, strategies and styles, and the variables under investigation, an interesting finding was the strong preference expressed for *kinesthetic* and *tactile* as a major learning style, and for *visual* and *auditory* as a minor style. This preference appears to be conducive to working with the Web, especially when one of its great strengths is the potential to engage students in real experiential learning, offering meaningful, goal-oriented activities in authentic settings. Many examples are highlighted in Part 2, and the ability to be engaged with authentic materials was a strong feature of what school-aged students perceived as an advantage of the environment.

Design implications

General

The factors that adult students valued most highly in terms of the usefulness of the material are *clear objectives, ease of navigation, meaningful feedback,* and *clear and logical content*. Unfortunately, the comparable data relating to younger students was not reliable enough to allow definite conclusions to be drawn for this latter group. Nevertheless, since these factors are clearly linked to good teaching practice, even without using technology, we strongly recommend special attention be given to them when designing Web-based resources.

Feedback

The importance of feedback emerged most strongly from both the quantitative and qualitative studies, and was expressed by students of all ages. This finding is supported by the current literature (Sims 1999; Lyall & McNamara 2000) as well as by earlier studies on distance education (Haughey 1990). It is also an element strongly emphasised in papers dealing with quality indicators (FuturEd Report 2000; Illinois Report 1999; Ragan 1998; Kearsley 1998).

Given these findings, more needs to be done to ensure excellent feedback. The question is, of course, complicated by the very different types of feedback adopted in different programs. There is for example, a big difference between, at one extreme, Web courses where all feedback is provided online, and, at the other, courses in which the Web is used only for specific tasks and all feedback is provided in class. Good feedback will be of crucial importance in Web-based distance education, but it also has a role to play in the large number of courses which include exercises that are not marked by the tutor.

Where online feedback is concerned, students have expressed dislike of approaches that simply refer them to the relevant page of a textbook. However, this form can still be seen on the Web, and a case for its value as a conscious pedagogy is made by Takako Tomoda and Brian May in Part 1. When feedback is provided online, thought should be given to making it as helpful as possible. One question is whether feedback is provided in a batch at the end of the exercise, or after every response (allowing for the possibility of a learning process during the course of the exercise). Where content is concerned, lists of correct answers seem of limited usefulness, particularly if students cannot see their own responses for the purposes of comparison. A minimum level of feedback adopted by many sites is to present the question, the student's response and the required answer if the student's response was wrong, occasionally with signals like green ticks and red crosses to highlight correct and incorrect attempts. A total score (or percentage) also seems a useful way of giving students an indication of how well they have done.

Beyond this minimum, the ideal should be to provide something more than a simple mark for each question, and to append helpful and relevant comments on errors to stimulate the process of learning. Naturally, multiple-choice lends itself to this approach much more than open-ended questions, where the number of possible mistakes may be enormous and where meaningful feedback may still need to be provided by humans.

The point is that students want and need excellent feedback, and more effort needs to be invested in responding to this need. This is crucially true of quality Web-based distance education, but the effort should be made for all work that is evaluated online.

Sound

It was not surprising that the lack of speaking practice was seen as a great disadvantage of using the Web for language learning activities. That so many students commented on this, may reflect the kinds of activities that were missing in their case, as well as assumptions about what traditional distance learning can provide. However, there is no reason why students cannot communicate meaningfully in the target language while using Web materials, or while preparing cooperative projects. Teachers have commented on how groups of students involved in Web activities are stimulated to talk to each other in the target language. Where speaking practice is consistent with the goals of the course, this development should be encouraged.

Apart from this in-class activity, the Web offers just as many speaking opportunities in technical terms as the previous generation of CALL. Voice recognition and recording activities are already being integrated by sites such as Global English (see Part 2) but this author remains rather sceptical about the usefulness of such resource-heavy devices as a general practice (Felix 1997). It is our view that it is more advisable to use a particular medium for the best potential it offers, rather than trying to simulate everything that can be done in the classroom. Why not reserve oral practice for classroom activities and exploit the unique potential of the Web which lies (in the students' own words) in its provision of instant authenticity, wealth of information, and reinforcement of learning?

Other considerations naturally apply to distance education. If we are serious about providing quality language courses at a distance, the question of how to integrate speaking practice is critical. Our distance providers in Part 1 are still struggling with this challenge, and are in the process of adding more sophisticated means such as Web phone, audio conferencing, and videoconferencing to the traditional residential stints. New software is going to be helpful here. Sites such as Wimba (http://www.wimba.com/) are showing what can increasingly be done with asynchronous voice technologies for the Web, such as streaming voice e-mail and voice forums which take the form of a threaded message board in which the messages are spoken.

Where listening is concerned, the Web already provides many excellent examples of activities delivered at high quality standards (see Part 2), although much of dubious quality remains. The least we can do at the present time is deliver sound at the best possible quality using streamed audio (see Goodwin-Jones 2000 for technical information). The fact that the school-aged students here complained about the lack of sound, or poor sound, may have been a reflection of not having been exposed to activities using sound, or having been exposed to poorly delivered sound, or technological failure.

Graphics

Findings related to the relative importance of graphics in Web resources were very interesting. Not surprisingly, younger students were most impressed with graphics, a finding supported by Owston (1997). What was surprising, though, was that highly rated graphics did not contribute to students' perceptions of materials being more useful. There was, however, a strong indication that students spent more time working on the Web if they valued the graphics highly. This appears to suggest that strategic integration of graphics may well be worthwhile. We emphasise here that students were exposed to fairly simple and sparingly used graphics, and that "bells-and-whistles" approaches are not necessarily needed, least of all if faster access is desired. Naturally, one would prefer professionally produced, beautifully presented graphics such as those in the French children's site *L'escale* (see Part 2) but again, we are talking about huge resource implications here. And if the little homemade stick figures in the Japanese site (see *Sakura* in Part 2), to which some students referred, can have a positive effect on motivation, why not start simply?

Finally, however highly one rates the potential of the Web, it is difficult to imagine that any of this will ever replace best practice face-to-face teaching. What is becoming more and more obvious with emerging research, is that the new technologies offer excellent potential for adding value to classroom teaching in a large variety of ways (this is not to suggest that there is not also the potential for quality distance learning, though the challenges here may be even greater). Careful planning needs to be devoted to the incorporation of resources in stable environments with clearly stated objectives. Since students in conducive conditions find the experience enjoyable and useful, and are prepared to work longer hours, it is highly probable that the use of the technology may lead to better learning outcomes.

Reflections on possible further research

The critical focus for future research appears to be to look at the effectiveness of Web-based learning compared with other approaches. Do students learn more? Do they learn less, faster, with more ease? Or does the approach make no difference? To answer any of these and many other questions, we would need comparable groups which are involved in learning identical materials with or without use of the Web. Interesting observations of such an approach on a very small scale, by one of the participating teachers in Study 2, are included in Appendix 3.

The difficulty with this type of research is that, even if we managed to overcome the myriad design problems outlined in the introduction to Part 3, we would then have to find ingenious ways of measuring comparable outcomes in terms of performance or achievement. Devising proficiency indicators in language learning is extremely difficult at the best of times; adding an unruly element like the Web is

342

hardly going to make the task any easier. While it was perfectly possible to test the effect of a self-contained computer program to teach vocabulary in pseudo-laboratory conditions, identifying the effects of the sorts of learning activities the Web is best suited to, is a much more challenging task.

What seems most important is that we ask the right questions. Ehrmann's (1997) entertaining account of unanswerable research questions includes this telling quote:

> *"I've got two pieces of bad news about the experimental English composition course where students used computer conferencing. The first bad news is that, over the course of the semester, the experimental group showed no progress in their ability to compose an essay. The second piece of bad news is that the control group, taught by traditional methods, showed no progress either."*

While the results from this research study may well end up in the "No significant difference" database, the only real conclusion we can draw from it is that we cannot say anything about the effects of computer conferencing on essay writing. Just as we cannot say anything about the effects of the "traditional methods". Or can we conclude that students exposed to computer conferencing or "traditional" methods will not make any progress in their ability to compose essays over the course of one semester?

Looking at the whole corpus of CALL research, it seems ill-advised to choose experimental or quasi-experimental research designs when investigating the Web, since it is, without a doubt, the least "controllable" of the newer technologies. While we can gauge students' work with CD-ROMs, or monitor their involvement in computer-conferencing fairly accurately, documenting what they do on the Web in task-based experiential learning activities is hugely more complex.

Another consideration is weighing up the value of large-scale time- and resource-consuming investigations likely to produce more generalisable conclusions, as compared with smaller studies that are easier to design and carry out. One excellent example of the latter is Warschauer's tightly controlled time series study (1996), which compared the performance of the same group of students engaged in discussion groups communicating via a computer and in a regular tutorial setting.

In the light of all this, what are sensible questions we might ask and investigate seriously?

The present studies strongly suggest two areas of investigation on which the author will embark next.

1. Pedagogical and technical questions relating to the provision of feedback.
2. Pedagogical and technical questions relating to speaking activities on the Web.

Other suggestions are most welcome.

References

Atkinson, T. (1998) "Researching language learning and technology", paper delivered at the inaugural *WorldCALL* conference, Melbourne, July 1998.

Ayoun, Dalila (2000) "Web-based elicitation tasks in SLA research", *Language Learning & Technology*, 3 (2), 77–98.

Basena, D. & Jamieson, J. (1996) "CALL research in second language learning: 1990–1994", CAELL, 7 (1/2), 14–22.

Brown, G., & Wack, M. (1999) "The difference frenzy and matching buckshot with buckshot", *The Technology Source*, May, [Online] http://horizon.unc.edu/ts/reading/1999-05.asp

Castells, M. (1998) *End of Millenium*, Malden, MA: Blackwell.

Chapelle, C. (1997) "CALL in the year 2000: Still in search of research paradigms?", *Language Learning and Technology*, 1 (1), 19–43.

Clarke, R.E. (1983) "Reconsidering research on learning from media", *Review of Education Research*, 53 (4), 445–459.

Clarke, R.E. (1985) "Evidence for confounding in computer based instruction studies: Analysing the meta-analyses", *Educational Technology Research and Development*, 33 (4), 235–262.

Clarke, T. (1993) "Attitudes of higher education faculty toward distance education: A national survey", *The American Journal of Distance Education*, 7 (2), 19–33.

Debski, R. & Gruba, P. (1998) "Attitudes towards language learning through social and creative computing", in Cameron, K.C. (ed), *Multimedia CALL: Theory and Practice, Proceedings of the Exeter 1997 Conference*, Exeter: Elm Bank Publications, 51–56.

Dunkel, P. (1991) "The effectiveness of research on computer-assisted instruction and computer-assisted language learning", in Dunkel, P., *Computer-Assisted Language Learning and Testing*, New York: Newbury House, 5–36.

Ehrmann, S. (1997) *Asking the Right Question: What does Research tell us about Technology and Higher Learning?* [Online] http://www.learner.org/edtech/rscheval/rightquestion.html

Farrell, G.M. (Ed) (1999) *The Development of Virtual Education: A Global Perspective,* Vancouver, BC: The Commonwealth of Learning, [Online] http://www.col.org/virtualed

Feenberg, A. (1999) "Distance learning: Promise or threat?" [Online] Andrew Feenberg's Home Page http://wwwrohan.sdsu.edu/faculty/feenberg/TELE3.HTM

Felix, U. & Lawson, M. (1994) "The effects of suggestopedic elements on quantitative and qualitative language production", *Australian Review of Applied Linguistics*, 17 (2), 1–21.

Felix, U. (1997) "In the future now? Towards meaningful interaction in multimedia programs for language teaching" in Meissner, F-J.(ed) *Interaktiver Fremdsprachenunterricht, Wege zu authentischer Kommunikation*, Gunter Narr Verlag, Tübingen (ISBN 3-8233-5177-X) pp 129–143.

Felix, U. (1998) *Virtual Language Learning: Finding the Gems Among the Pebbles*, Melbourne: Language Australia Ltd.

Felix, U. (1999) "Web-based language learning: A window to the authentic world", in Debski, R. and Levy, M. (eds), *WORLDCALL: Global Perspectives on Computer-Assisted Language Learning*, Amsterdam: Swets & Zeitlinger, 85–98.

Felix, U. (2000) "The potential of CD-ROM technology for integrating language and literature: Student perceptions", in press September issue *German as a Foreign Language*, [Online] http://www.schmachtenberg.de/gfl/

Finkelstein, D. & Dryden, L. (1998) "Cultural studies in cyberspace: Teaching with new technology", *Asynchronous Learning Networks Magazine*, 2 (2)

"FuturEd. Report: Researching Virtual Secondary Schools in Canada", (2000) [Online] http://www3.sk.sympatico.ca/parklnd/FuturEd.htm

(keep an eye on this site for updates and proper title)

Ganderton, R. (1999) "Interactivity in L2 Web-based reading", in Debski, R. & Levy, M. (eds.), *WorldCALL: Global Perspectives on Computer-Assisted Language Learning*, Amsterdam: Swets & Zeitlinger, 49–66.

Goodwin-Jones, B. (2000a) "Emerging technologies: Literacies and technology tools/trends", *Language Learning & Technology*, 4 (2), 11–18.

Goodwin-Jones, B. (2000b) "LANGUAGE INTERACTIVE: A trailguide to creating dynamic Web pages" [Online] http://www.fln.vcu.edu/cgi/interact.html

Hara, N. and Kling, R. (1999) "Students' frustrations with a Web-based distance education course", [Online] http://firstmonday.org/issues/issue4-12/hara

Haughey, M. (1990) "Distance education in schools", *The Canadian Administrator*, 9 (8)

Heift, T. (2000) "Error-specific and individualised feedback in a Web-based language tutoring system", Paper delivered at EUROCALL2000 conference, Dundee, Scotland.

Hiltz, S.R. (1997) "Impacts of college-level courses via asynchronous learning networks: Some preliminary results", *Journal of Asynchronous Learning Networks*, 1 (2), 1–19.

Hoven, D. (1997) "Improving the management of flow of control in computer-assisted listening comprehension tasks for second and foreign language learners", Brisbane: Unpublished doctoral dissertation, University of Queensland.

Illinois Report (1999) *Teaching at an Internet Distance: The Pedagogy of Online Teaching and Learning*, The report of a 1998–1999 University of Illinois Faculty Seminar.

Joy II, E.H., & Garcia, F.E. (2000) "Measuring learning effectiveness: A new look at no-significant-difference findings", *Journal of Asynchronous Learning Networks*, 4 (1), 33–39.

Kearsley, G. (1998) "Online education: New paradigms for learning and teaching", *The Technology Source*, August 1998. [Online] http://horizon.unc.edu/TS/vision/1998-08.asp

Kennedy, G.E. (1998) *Computer Aided Learning: Formative Evaluation Questionnaires*, Biomedical Multimedia Unit, University of Melbourne

Kulik, J.A., Kulik, C.C. & Cohen, P.A. (1980) "Effectiveness of computer-based college teaching: A meta-analysis of findings", *Review of Education Research* 50 (4), 525–544.

Lamy, M-N. (1997) "The Web for French grammar: A tool, a resource or a waste of time?", ReCALL, 9 (2), 26–32.

Levy, M. (1997) "Project-based learning for language teachers: Reflecting on the process", in Debski, R., Gassin, J. & Smith, M. (eds), *Language Learning through Social Computing*, Occasional Papers Number 16, 181-199, Melbourne: ALAA and the Horwood Language Centre.

Litke, C.D. (1998) "Virtual Schooling at the middle grades: A case study", *Journal of Distance Education*, 13 (2), 33–50.

Loomis, K.D. (2000) "Learning styles and asynchronous learning: Comparing the LASSI model to class performance", *Journal of Asynchronous Learning Networks*, 4 (1), 23–32.

Lyall, R. & McNamara, S. (2000) "Learning tool or potplant stand? Students' opinions of learning from a CAL program in a distance education context", *Australian Journal of Educational Technology*, 16 (2), 126–146.

McIssac, M.S. & Gunawardana, C.N. (1996) "Distance education", in Johnassen, D. (ed) *Handbook of Research for Educational Communications and Technology*, New York: Macmillan, 403–437.

McLaughlan, R. & Kirkpatrick, D. (1999) "A decision making simulation using computer mediated communication", *Australian Journal of Educational Technology*, 15 (3), 242–256.

Maddux, C.D. (1995) "Research in educational computing: Problems of internal and external validity", *Computers in the Schools*, 11 (3), 7–10.

Marr, B., Tout, D., Johnston, B. & Renshaw, M. (1999) *Absolutely Worth the Effort: The final report of the Adult Numeracy and Mathematics On Line Project*, An Australian Language and Literacy Policy, ANTA Adult Literacy National Project 1998.

Meagher, M.E. and Castanos, F. (1996) in Herring, S.C. (ed.), *Computer-Mediated Communication: Linguistic, Social and Cross-Cultural Perspectives*, Amsterdam: John Benjamins Company

Meredyth, D., Russel, N., Blackwood, L., Thomas, J. & Wise, P. (1999) *Real Time Computers, Change and Schooling*, Department of Education, Training and Youth Affairs, Canberra.

Noble, D.F (1997) *Digital Diploma Mills, Part I: The Automation of Higher Education*. [Online] http://communication.uscd.edu/dl/ddm1.html

Noble, D. F. (1998a) *Digital Diploma Mills, Part II: The Coming Battle over Online instruction*. [Online] http://communication.uscd.edu/dl/ddm2.html

Noble, D. F. (1998b) *Digital Diploma Mills, Part III: The Bloom is off the Rose*. [Online] http://communication.uscd.edu/dl/ddm3.html

Ory, J.C., Bullock, C., & Burnaska, K. (1997) "Gender similarity in the use of and attitudes about ALN in a university setting", *Journal of Asynchronous Learning Networks*, 1 (1), 39–51.

Owston, R. D. (1997) "The World Wide Web: A technology to enhance teaching and learning?", *Educational Researcher*, 26 (2), pp 27–33.

Oxford, R. (1990) *Language Learning Strategies: What Every Teacher Should Know*. New York: Newbury House.

Parry L. & Wharton R, (1994) "Networking in the workplace: The role of gender in electronic communications" in Gattiker, U. (ed), *Studies in Technological Innovation and Human Resources: Vol. 4. Women and Technology*, Berlin: DeGruyter Press, 65–92.

Papert, S. (1993) *The Children's Machine: Rethinking School in the Age of the Computer*, New York: Basic Books.

Phipps, R.and Merisotis, J. (1999) *What's the Difference? A Review of Contemporary Research on the Effectiveness of Distance Learning in Higher Education*. [Online] http://www.ihep.com/PUB.htm

Ragan, L.C. (1998) "Good teaching is good teaching: An emerging set of guiding principles and practices for the design and development of distance education", *DEOSNEWS*, 8 (12) http://www.ed.psu.edu/acsde/deos/desonews

Reid, J.M. (1998) *Understanding Learning Styles in the Second Language Classroom*, New Jersey: Prentice Hall Regents.

Russell, T.L. (1999) *The No Significant Difference Phenomenon*, Chapel Hill, NC: Office of Instructional Telecommunications, North Carolina University.

Schifter, C.C. (2000) "Faculty participation in asynchronous learning networks: A case study of motivating and inhibiting factors", *JALN*, 4 (1), 15-22.

Sims, R. (1999) "Interactivity on stage: Strategies for learner-designer communication", *Australian Journal of Educational Technology*, 15 (3), 257-272.

Smith J. (1995) "What does convergence mean for women?" *Intermedia*, 23 (5), 20-22.

Stewart, C.M., Shields, S.F., Monolescu, D., & Taylor J.C. (1999) "Gender and participation in synchronous CMC: An IRC case study", *Interpersonal Computing and Technology*, 7, (1-2) [Online]

http://www.emoderators.com/ipct-j/1999/n1-2/stewart.html

Taylor, J.C., and White, J.V. (1991) "Faculty attitudes towards teaching in the distance education mode: An exploratory investigation", *Research in Distance Education*, July, 7-11.

Van Aacken, S. (1999) "What motivates L2 learners in acquisition of kanji using CALL: A case study", *Computer Assisted Language Learning*, 12 (2), 113-136.

Warschauer, M. (1996) "Computer-mediated collaborative learning: Theory and practice", *Modern Language Journal*, 18 (4), 470-481.

White, F. (1999) "Digital diploma mills: A dissenting voice", *First Monday*, 4 (7), [Online] http://firstmonday.org/issues/issue4_7/white/index.html.

Windschitl, M. (1998) "The WWW and classroom research: What path should we take?" *Educational Researcher*, 27 (1), 28-33.

Appendix 1

Explanation of Learning Strategies and Learning Styles

Rebecca Oxford's Language Learning Strategies

The following definitions are taken from Rebecca Oxford's "Strategy Inventory for Language Learning (SILL)" in Oxford, R. (1990) *Language Learning Strategies: What Every Teacher Should Know*, Boston: Heinle & Heinle.

Memory
Remembering more effectively: grouping; making associations; placing new words into a context to remember them; using imagery, sounds, sound-and-image combinations, actions, etc. in order to remember new expressions; reviewing in a structured way; going back to review earlier material.

Cognitive
Using your mental processes: repeating; practising with sounds and writing systems; using formulas and patterns; recombining familiar items in new ways; practising the new language in a variety of authentic situations involving the four skills (listening, reading, speaking, and writing); skimming and scanning to get the idea quickly; using reference resources; taking notes; summarising; reasoning deductively (applying general rules); analysing expressions; analysing contrastively via comparisons with another language; being cautious about word-for-word translating and direct transfers from another language; looking for language patterns; adjusting your understanding according to new information.

Compensating
Compensating for missing knowledge: using all possible clues to guess the meaning of what is heard or read in the new language; trying to understand the overall meaning and not necessarily every single word; finding ways to get the message across in speaking or writing despite limited knowledge of the new language; for instance, using gestures, switching to your own language momentarily, using a synonym or description, coining new words.

Metacognitive

Organising and evaluating your learning: overviewing and linking with material you already know; deciding in general to pay attention; deciding to pay attention to specific details; finding out how language learning works; arranging to learn (schedule, environment, notebook); setting goals and objectives; identifying the purpose of a language task; planning for a language task; finding practice opportunities; noticing and learning from your errors; evaluating your progress.

Affective

Managing your emotions: lowering your anxiety; encouraging yourself through positive statements; taking risks wisely; rewarding yourself; noting physical stress; keeping a language learning diary; talking with someone about your feelings/attitudes.

Social

Learning with others: asking questions for clarification or verification; asking for correction; cooperating with peers; cooperating with proficient users of the new language; developing cultural awareness; becoming aware of others' thoughts and feeling.

Joy Reid's Perceptual Learning Style Preferences

(The following is taken from Reid, J.M. (1998), *Understanding Learning Styles in the Second Language Classroom*, New Jersey: Prentice Hall Regents.)

Visual Major Learning Style Preference

You learn well from *seeing words* in books, on the chalkboard, and in workbooks. You remember and understand information and instructions better if you *read* them. You don't need as much oral explanation as an auditory learner, and you can often learn alone with a book. You should take notes of lectures and oral directions if you want to remember the information.

Auditory Major Learning Style Preference

You learn from *hearing words* spoken and from oral explanation. You may remember information by *reading aloud* or by moving your lips as you read, especially when you are learning new material. You benefit from hearing audiotapes, lectures, and class discussion. You benefit from making tapes to listen to, by teaching other students, and by conversing with your teacher.

Kinesthetic Major Learning Style Preference

You learn best by experience, by being *involved physically* in classroom experiences. You remember information well when you actively participate in activities, field trips, and role-playing in the classroom. A combination of stimuli – for example, an audio tape combined with an activity – will help you understand new material.

Tactile Major Learning Style Preference

You learn best when you have the opportunity to do *"hands-on" experiences* with materials. That is, working on experiments in the laboratory, handling and building models, and touching and working with materials provide you with the most successful learning situations. *Writing notes or instructions* can help you remember information, and *physical involvement* in class-related activities may help you understand new information.

Group Major Learning Style Preference

You learn more easily when you study with at least one other student, and you will be more successful completing work well when you *work with others*. You value group interaction and class work with other students, and you remember information better when you work with two or three classmates. The stimulation you receive from group work helps you learn and understand new information.

Individual Major Learning Style Preference

You learn best when you work *alone*. You think better when you study alone, and you remember information you learn by yourself. You understand material best when you learn it alone, and you make better progress in learning when you work by yourself.

Minor Learning Styles

In most cases, minor learning styles indicate areas where you can function well as a learner. Usually, a very successful learner can learn in several different ways, and so you might want to experiment with ways to practise and strengthen your minor learning styles.

Negligible Learning Styles

Often, a negligible score indicates that you may have difficulty learning in that way. One solution may be to direct your learning to your stronger styles. Another solution may be to try to work on some of the skills to strengthen you learning style(s) in the negligible area(s).

Appendix 2

Descriptions by participating teachers of their students' Web activities.

Teacher 1 (French)

Year 7 & 8 French

- as part (but not sole!) research resource for cultural projects which include English/French section

Year 7 (immersion) French

- as main resource for cultural projects entirely in French
- Web-page creation (see Compass Web page if you are interested for introduction to this "Portes Ouvertes: Australie", address:
- http://specialeducation.mlc.vic.edu.au/online/lote/frenchquizzes/frenc (check: looks like you need user name and password to access this site)
- hquizzes.htm
- e-mail Melbourne-Paris including attached digital photos, voice recordings
- correction of work such as Claris/Microworlds projects via e-mail

Teacher 2 (Japanese/French)

We use the internet once every two weeks in Year 8, 9 and 10. We create online quizzes, participate in chat rooms and discussion boards and utilise my Web page to access a variety of Web pages as they become appropriate.

We use audio on the Web to share a variety of listening materials.

E-mail is often used to e-mail work to me for assessment.

Teacher 3 (Japanese)

I use the Internet or the Web probably once per fortnight with each of my language classes. It usually involves having students complete some sort of reading comprehension task, or to use the Web-based reading materials as stimulus for some particular task, eg read the menu and work out what each person would order given so much money.

I also use a number of Web-based quizzes and tutorials sites with my students, eg Funbrain, Quia, Puzzlemaker etc.

Teacher 4 (German)

Web activities in small groups with students going to a particular site in order to answer specific questions on a topic. They refer mainly to specific science or SOSE content, as we teach a partial immersion program of 1 hour per day in German.

Example:

Tiere im Hannover-Zoo

Wollt Ihr etwas über Tiere im Hannover Zoo lesen? Geht zu: http://www.zoo-hannover.de/default.html . Klickt auf Tiere von A bis Z, und dann könnt Ihr weiterlesen.

FRAGEN:

- Zu welcher Tiergruppe gehören die Tiere, die du siehst? ________________
- Was fressen sie? ________________________________
- Kannst du eine Nahrungskette von 2 oder mehr Tieren im Hannover-Zoo bilden? (z.B. Antilope -> Tiger) ________________________

Teacher 5 (French)

Students in my Year 8 class were directed to search the Web, guided how to do it, and asked to identify the information relevant to the topic of their choice. The ultimate aim was to develop an Intranet page on French culture with the students' findings on it and in their own words.

Teacher 6 (Spanish)

Students mainly worked on the local network on online activities developed by myself. They included image maps and quizzes to study vocabulary; there were generally writing activities to do after each topic and submit via the network. Also simple activities such as re-ordering a script or dialogue, copying and pasting statements into appropriate sections and using a forum for writing opinions etc and responding to those of others. All the information that the students needed regarding the course requirements, descriptions of Cats and Work Requirements etc were also online. Also lots of texts for reading (with appropriate pre-reading exercises) with electronic glossing and links to further study of grammatical points presented or links out to the Web to look at these. Occasionally they would use the Web to look for particular articles to help them with their research. At times, one of the CEO CGI scripts was used to write opinions and respond to those of others. Students also engaged in several activities that I devised for them at the Quia.com site.

Appendix 3

Computer-based tasks for English 153

The English 153 course is a one semester course of fifteen 45-minute periods per week. It is based on an in-house textbook, *Making Connections*, produced by the Higher Colleges of Technology. Teachers are permitted, within the fifteen periods, to include up to five periods in the computer laboratory and may use the CALL materials produced in-house, their own materials or materials found on the Internet. Using the computer laboratories is not mandatory, although the system does encourage the use of technology as part of the course and most teachers try to include at least two. Of the other ten periods, three were also devoted towards vocational oriented writing, for example, business letters and memoranda.

The English 153 class which took part in the project consisted of nine male Emirati students studying for a Higher Diploma in Business Administration and Information Technology. During the course, they were allocated three periods in computer labs with another two booked into the Independent Learning Centre, but for teacher-supported lessons. In the early parts of the course, the online exercises consisted, primarily of teacher-produced exercises, created mainly with the Hot Potatoes suite of programs, or simple HTML pages. These were primarily reading tasks which enhanced grammatical forms and structures practised in class. There were also weekly trips to the CNN site (http://www.literacynet.org/cnnsf/week.html) where students were required to complete the featured task and choose one more of their own interest, sending their scores, via e-mail, to the teacher. These scores were then added to a virtual class scoreboard for all to see on their own class site. Students were able to ask for assistance from both the teacher and their peers and were not afraid of making mistakes. Scores e-mailed were as low as 30 percent and usually reflected their actual performance on a task.

At the same time, students were receiving a weekly writing task via e-mail which they completed and returned by the same medium. This was marked using an electronic marking software and returned for re-drafting. The re-drafted version was then marked and added, unchanged, to an electronic portfolio which was being kept for each member of the class on the class site. A research project into an organisation, of their own choice, with a five-page report in the form of a Web site was also an integral part of the course during the first half of the semester. This was a slight variation of an academic goal from the system course book.

Further into the course, students were introduced to concordancing. Initially, this did not involve any online activities and they were simply given KWIC printouts with the keyword blanked out and encouraged to decide on the missing word and develop "rules of usage" which they presented to each other. Activities similar to those proposed by Johns (1991) when he talks of data-driven learning and Cobb (1999) in his paper on constructivist tasks in Oman. Later, after I discovered the online concordancer at the Virtual Language Centre of Polytechnic University (http://vlc.polyu.edu.hk), they were encouraged to look at certain words and combinations on their own, and, once again, present their findings to the rest of the group. On at least two occasions, this led to students, usually in pairs, "discovering" small differences in usage for themselves. During the latter part of the semester, the class was e-mailed tasks and URLs, if applicable, for a particular lesson, fifteen minutes before the class started and they were permitted to complete the tasks wherever they wished, provided they e-mailed the finished task by the end of the scheduled period.

Finally, towards the end of the semester, in conjunction with their Business Computing course, each student was required to investigate a certain aspect of the Internet, and produce a Web-site for publication on the college intranet, which took the form of an online report. The reports covered such issues as piracy, hacking, viruses, education and advertising. The Web sites were marked by both the English and Computer faculties.

After the final examinations, in early June, class results were compared with those of the Higher Diploma in Technology students. The students on the technology courses took basically the same English course, using the same course book and materials, but received only twelve periods per week and did not have the same allocation of periods in computer laboratories. Of the twelve periods, at least two were spent working on computers either in a laboratory or the ILC, while, like the business class, three were more vocationally oriented. Although not a requirement of the course, the teachers involved not only cooperated on materials, especially in projects for the first part of the semester where the online project had featured quite highly in course grades, but also exchanged classes in an effort to ensure some form of uniformity between the two groups.

One reason for the difference in the number of periods allocated to the two groups was the fact that students taking the technology course were required to achieve a higher grade in English at the end of their Foundation year in order to qualify for the course. It was not felt, therefore, that this group was disadvantaged by having fewer classes. There were opportunities for any weaker students — available to both classes — to have additional work assigned. One technology student, whose mid-term results were slightly lower than his peers, asked for, and was assigned, one extra writing task each week. At the beginning of the semester, the overall results for the technology class had been higher than those of the business class, and they were far more willing to produce written work than their peers in the business class. This overall difference in ability was, as expected, reflected in the results of the mid-semester examinations, with the technology class, on average, attaining higher grades in all skills.

It came, therefore, as something of a surprise to find that, on initial marking by an in-house group - not consisting of the teachers of the two classes - 58 percent of the technology class had failed to attain an overall pass, while only 33 percent of the business class had done so. At a central marking board, these figures were changed, with only 42 percent of the technology class having an overall fail, and the same 33 percent for the Business class.

In fact, it had been anticipated that a higher percentage of Business students would not be able to attain a passing grade in writing, while it had been assumed that only 25 percent of the Technology students would fail to achieve the passing grade. In the end, the marks for writing were the same — 33 percent for each class.

The greatest difference, however, was in the area of "Reading", with 41 percent of the technology students failing, while only 11 percent, or one student, in the business class failed to achieve a passing grade. One other factor, however, made these results even more unusual: the attitudes of the students. The students in the technology class were, overall, highly motivated. In general, their skills were superior to the members of the business class who felt that they were not important to the college and were, at their best, only average students. Trying to motivate them and encourage them to complete tasks was very difficult, and required a great deal of compromise. For this reason, the difference in their results was all the more surprising.

The results seem to indicate, however, that using the Internet for several different purposes had allowed the business students, even the weakest, to improve their own ability to read without focusing on the skill itself. As using the Internet requires students to read, no matter what task they have been given, it seems to be an ideal way for students to integrate this skill into their other activities without specific instruction. It is perhaps the integration of skills which led to the improvement, as the reading-based exercises at the beginning of the semester did not produce the same results in the mid-semester examinations. It appears that the later tasks, using the concordancing software and writing the integrated project, were the catalysts to the improvement.

As these results are a reflection of only a very small group of students, they must be treated cautiously, but the fact that they were not expected also suggests that integrating the Internet into other areas can result in an improvement of related skills.

References

Cobb, T. (1999) "Applying constructivism: A test for the learner as scientist", *Educational Technology Research & Development*, 47 (3), 15-31 Retrieved 11 March, 2000 from the World Wide Web: http://www.er.uqam.ca/nobel/r21270/cv/Constructivism.html

Johns, T. (1991) "From printout to handout: Grammar and vocabulary teaching in the context of data-driven learning" in Johns, T. & King, P. (eds.) *Classroom Concordancing, ELR Journal* 4, University of Birmingham, pp. 27-45.

BEYOND BABEL: LANGUAGE LEARNING ONLINE is an essential guide for:

- Teachers who want to develop their own materials on the Web
- Teachers who are interested in integrating interesting Web sites and ideas into their curriculum
- Teachers and researchers interested in students' perceptions of the Web environment
- Anyone who wishes to refresh a language, or get a feel for a new one, in the comfort of their own home
- Anybody who wants to learn more about approaches to Web-based language teaching.

It offers a warts and all presentation of what is currently being done in Web-based language learning by a group of practising experts. It is unique in combining reflections on developments, practice and research in a refreshingly jargon-free style, drawing on the experience of hands-on teachers, professional and amateur developers, and students of all ages in a variety of approaches and settings. The book presents a substantial body of new research into students' perceptions of the Web environment and the relative influence of learning strategies, learning styles and study preferences. It also contains a substantially updated and expanded version of the material published in the best-selling *Virtual Language Learning: Finding the Gems Amongst the Pebbles*, including approximately 600 useful language learning Web sites. This is also available on an accompanying CD-ROM, where all sites have direct links.

Professor Uschi Felix is Director of ArtsIT and Associate Dean (IT) at Monash University in Melbourne. She has a research background in applied linguistics and, during the last decade, has focused on the development, integration and evaluation of multimedia software and Web sites. She has published widely on the use of technology in language teaching.

LANGUAGE AUSTRALIA — FOSTERING AN ARTICULATE, LITERATE & MULTICULTURAL NATION